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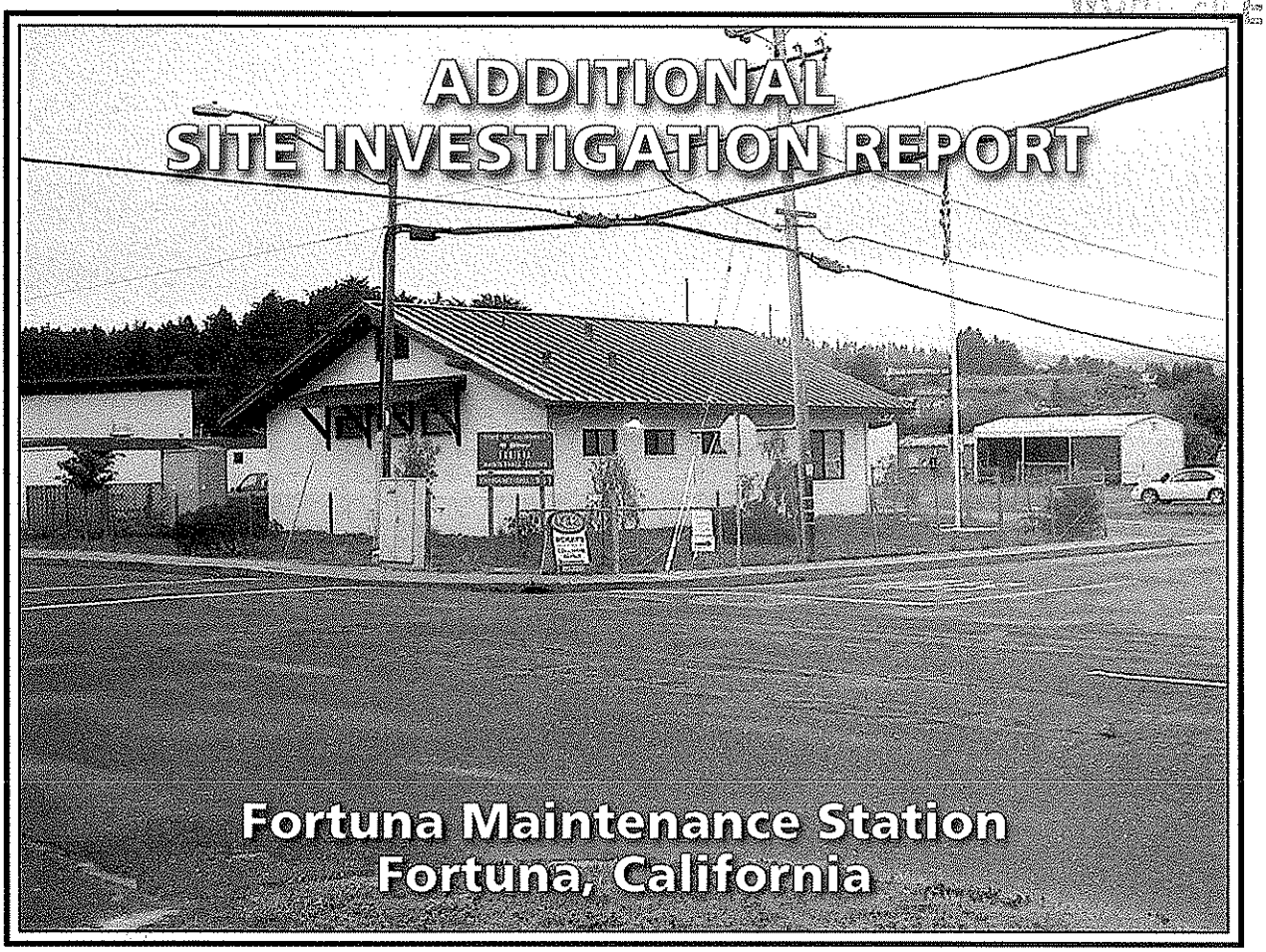
ADDITIONAL SITE INVESTIGATION REPORT



Fortuna Maintenance Station
Fortuna, California

PREPARED FOR:

CALIFORNIA DEPARTMENT OF TRANSPORTATION
DISTRICT 3
P.O. BOX 911
MARYSVILLE, CALIFORNIA 95901

Caltrans

PREPARED BY:

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GEOCON

GEOCON PROJECT NO. S8875-06-50
TASK ORDER NO. 50, EA NO. 03-910090

JUNE 2006

GEOCON
CONSULTANTS, INC.
GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS

Project No. S8875-06-50
June 30, 2006

Mr. Doug Coleman
California Department of Transportation
District 3
P.O. Box 911
Marysville, California 95901

Subject: FORTUNA MAINTENANCE STATION
1924 SMITH LANE
FORTUNA, HUMBOLDT COUNTY, CALIFORNIA
CONTRACT NO. 03A0937
TASK ORDER NO. 50, EA NO. 03-910090
ADDITIONAL SITE INVESTIGATION REPORT

Dear Mr. Coleman:

In accordance with the California Department of Transportation (Caltrans) Contract No. 03A0397 and Task Order (TO) No. 50, we have performed additional site investigation (ASI) activities at the Caltrans Fortuna Maintenance Station located at 1924 Smith Lane in Fortuna, California (the Site). The ASI was performed in response to written directives from the Humboldt County Division of Environmental Health (HCDEH).

The purpose of the scope of services outlined in TO No. 50 was to further define the extent of subsurface petroleum hydrocarbon impacts beneath the Site in the vicinity of well MW-16 as requested by the HCDEH. The investigation activities included the performance of nine direct-push soil borings and the installation of three nested well pairs to facilitate the collection of soil and groundwater samples for chemical analysis.

The contents of this report reflect the views of Geocon Consultants, Inc., who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

Please contact us should you have any questions concerning the contents of this Report or if we may be of further service.

Sincerely,

GEOCON CONSULTANTS, INC.

REGISTERED PROFESSIONAL ENGINEER
JOHN JUHREND
No. 46681
Exp. 06/30/07
CIVIL
STATE OF CALIFORNIA

John E. Juhrend, PE, CEG
Principal

West J. Bourgault, PG
Project Geologist

WJB:JEJ:jaj

(2 + 1 CD) Addressee

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ADDITIONAL SITE INVESTIGATION REPORT

1.0 INTRODUCTION

This Additional Site Investigation (ASI) Report was prepared for the California Department of Transportation (Caltrans) Fortuna Maintenance Station (the Site) under Caltrans Contract No. 03A0937 and Task Order (TO) No. 50.

1.1 Project Location and Description

The Site is located at 1924 Smith Lane in Fortuna, Humboldt County, California. The approximate site location is depicted on the attached Vicinity Map, Figure 1. The Site maintenance station contains office and equipment buildings, a resident mechanic's facility, a warehouse, storage bins and a loading dock. The site layout is depicted on the attached Site Plan, Figure 2.

1.2 Background

The following information is based on a review of the *Site Investigation Report*, prepared by HSI Geotrans (HSI), dated April 10, 1998, and the *Technical Report-Soil Remediation*, prepared by One Earth Environmental, Inc. (OEE), dated February 9, 2000.

One gasoline underground storage tank (UST), one diesel UST and one waste oil UST were removed from the central portion of the Site in October 1992. Additionally, HSI reported that another gasoline UST may have been present near the reported "gasoline house."

Several phases of investigation have occurred at the Site. Prior to the well installation described in this report, eleven onsite and four offsite groundwater monitoring wells were present at the Site. Groundwater monitoring has been performed at the Site since May 1989. Total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene, and total xylenes (BTEX) have historically been reported for the groundwater samples.

The most recent remedial activity at the Site was performed in September 1999. A total of 2,746 tons of petroleum hydrocarbon-impacted soil was excavated and disposed of from the central portion of the Site (including the former gasoline and diesel UST excavations). The maximum depth of the excavation was reported as approximately 12 feet below the ground surface (bgs), and the average depth of the excavation was reported as 10 feet bgs. The limits of the soil excavation are depicted on Figure 2. The excavation was subsequently backfilled with 2,224 tons of 3/4-inch aggregate base. During backfilling of the excavation, 1,102 pounds of Oxygen Release Compound (ORC) containing magnesium peroxide was dispersed within the lower level of the backfill. ORC was also injected into

200 Geoprobe® holes located within the downgradient plume area, most of them within the Fortuna Boulevard right-of-way. Based on the soil excavation activities, OEE reported that the majority of soil impacts beneath the Site remain in a "gray silt" material at a depth of approximately 3 to 5 feet bgs.

Results of the most recent groundwater monitoring event performed at the Site in May 2006 show that TPHg and benzene are present in two separate areas of the Site. TPHg and benzene were each reported for onsite well MW-3 and offsite well MW-11. These impacts appear to be associated with the former "gasoline house" located on the western edge of the Site near the southwest corner of the office and equipment building. The greatest TPHg and benzene concentrations were reported for the sample collected from well MW-16 located in the central portion of the Site just north of the northern edge of the 1999 soil excavation. Free-product was encountered in well MW-16 in September 2004.

Based on the presence of free-product encountered in well MW-16, the Humboldt County Division of Environmental Health (HCDEH) issued their March 22, 2005, directive for additional investigation at the Site, with the following comments:

- *Has the extent of soil and groundwater contamination been adequately defined in the vicinity of MW-16 and downgradient of this well to the north and northwest?*
- *Has the source removal of contaminated soil of groundwater in the vicinity of MW-16 been conducted to the maximum extent practicable?*
- *What is the mass quantity and distribution of contaminants in soil and groundwater in the vicinity of MW-16?*
- *What additional remedial actions may be warranted to achieve water quality objectives in a reasonable period of time?*

1.3 Purpose

The purpose of the scope of services outlined in TO No. 50 was to further define the extent of subsurface petroleum hydrocarbon impacts beneath the Site in the vicinity of well MW-16 as requested by the HCDEH in their March 22, 2005, correspondence. The scope of services we performed also addressed the May 4, 2006, correspondence from the HCDEH in which they requested abandonment of well MW-16; replacement of well MW-16 with a nested well pair; and installation of two additional nested well pairs at locations downgradient of the former UST excavation. The recommended screen intervals for the nested wells were from 2 to 3 feet bgs extending no greater than 10 feet bgs for the shallow wells, and from 15 to 20 feet bgs for the deep wells.

2.0 INVESTIGATIVE METHODS

The following scope of services was performed as requested by Caltrans in TO No. 50:

2.1 Pre-field Activities

- Conducted a pre-work site visit on February 23, 2006, with Caltrans representative Doug Coleman and Geocon representative West Bourgault. The purpose of the pre-work site visit was to observe the boring locations, mark locations for Underground Service Alert (USA) and to determine drilling rig accessibility and potential utility conflicts.
- Prepared a project-specific *Health and Safety Plan* (HSP) for the Site dated March 2006. The HSP provided guidelines on the use of personal protective equipment and the health and safety procedures implemented during the field activities.
- Prepared the *Additional Site Investigation Workplan (Workplan)* dated April 26, 2006, and *Workplan Addendum* dated May 25, 2006. The Workplan and *Workplan Addendum* described the purpose of the soil borings, identified boring and well locations and field methodologies, and described the laboratory analytical program for the project. The Workplan was approved by the HCDEH in correspondence dated May 5, 2005, and the *Workplan Addendum* was approved by the HCDEH in correspondence dated June 2, 2006.
- Obtained soil boring permits from the HCDEH for the direct-push and hollow-stem auger (HSA) borings at the Site. Copies of the HCDEH boring permits are presented in Appendix A.
- Retained the services of V&W Drilling (V&W), a Caltrans-approved and California-certified subcontractor, to perform the direct-push boring activities (C57 License No. 720904).
- Retained the services of Mitchell Drilling Environmental Corp. (MDE), a Caltrans-approved and California-certified subcontractor, to perform the well installation activities (C57 License No. 672617).
- Retained the services of Kiff Analytical LLC (Kiff), a Caltrans-approved and California-certified analytical laboratory (ELAP No. 2236), to perform chemical analysis of soil and groundwater samples.
- Provided the required 48-hour notification to USA prior to each job site mobilization (USA Ticket Numbers 087462 and 192699).
- Retained the services of Morrow Surveying, a Caltrans-approved and California-licensed surveyor, to survey the location and elevation of the groundwater monitoring wells at the Site and to perform a Global Positioning System (GPS) survey for the wells as required by Assembly Bill 2886.

2.2 Field Activities – Direct-Push Borings

On March 21, 2006, V&W advanced nine soil borings (B36 through B44) at the Site to an approximate depth of 8 feet bgs to facilitate the collection of soil and groundwater samples utilizing a truck-mounted direct-push rig. Soil samples were collected from each soil boring utilizing a hydraulically driven 4-foot-long soil sampler equipped with plastic liner sample tubes to facilitate sample handling and storage. Following retrieval of the sampler, the sample tube was cut at the desired sampling depth

capped with Teflon™ sheets and plastic end caps, labeled, chilled, and transported to Kiff following chain-of-custody protocol. The approximate soil boring locations are depicted on Figure 2.

Each soil boring was logged in the field utilizing the Unified Soil Classification System by a geologist under the direction of a California Professional Geologist. Boring logs indicating the soil and geologic conditions encountered and sample locations are presented in Appendix B. Soil samples were collected at depths of approximately 4, 6 and 8 feet bgs in borings B36, B37, B38, B41, B42 and B44. Soil samples were collected at depths of approximately 3, 6 and 8 feet bgs in boring B39; 2 and 8 feet bgs in boring B40; and 2, 4, 6 and 8 feet bgs in boring B43.

After placing a 3/4-inch-diameter polyvinyl chloride (PVC) casing with a 10-foot section of 0.010-inch slotted screen into the borings and placing hydrated bentonite chips around the PVC casing at the ground surface, the borings were allowed to stand open overnight and grab groundwater samples were collected from each boring on March 22, 2006. The samples were collected using a small-diameter dedicated disposable bailer lowered within the casings. The groundwater samples were transferred from the bailer to four laboratory-provided, hydrochloric acid-preserved, volatile organic analysis (VOA) containers. Following the collection of the groundwater samples, the VOAs were labeled and placed in a chilled cooler pending delivery to Kiff following chain-of-custody protocol. Each boring was backfilled with cement slurry.

Quality assurance/quality control (QA/QC) procedures utilized during the field activities included decontaminating the probe rods used during the advancement of the borings and sampling equipment prior to, and following, each use. Decontamination consisted of washing the equipment in an Alconox® solution, followed by fresh water and distilled water rinse.

2.3 Field Activities – Well Installation

On June 12, 2006, MDE advanced two soil borings to approximate depths of 21 feet bgs utilizing a CME 75 HSA drill rig equipped with 8-inch-diameter augers to facilitate the installation of nested well pairs MW-17S/MW-17D and MW-18S/MW-18D. On June 13, 2006, MDE destroyed well MW-16 by overdrilling the well with 10-inch-diameter augers to a depth of 21 feet bgs to facilitate the installation of nested well pair MW-16S/MW-16D. Well completion diagrams are included on the boring logs presented in Appendix B. Nested wells MW-16S/MW-16D were constructed using 2-inch-diameter Schedule 40 PVC well casing and nested wells MW-17S/MW-17D and MW-18S/MW-18D were constructed using 1-inch-diameter Schedule 40 PVC well casing. Each of the wells contains a 5-foot-long section of 0.010-inch-slotted screen. The filter pack consists of #3 Monterey silica sand. The well materials were placed in the borings through the annular space between the well casing and the HSAs. Well pair MW-16S/MW-16D was finished with a 12-inch-diameter traffic-rated Christy box and well pairs MW-17S/MW-17D and MW-18S/MW-18D were finished with 8-inch-diameter traffic-rated

Christy boxes. The Christy boxes were set in concrete and the well casings were secured with locking well caps. The details of the well completions are summarized below.

Shallow wells MW-16S, MW-17S and MW-18S were completed to a depth of 8 feet bgs. The well screens were placed from 3 to 8 feet bgs and the filter packs placed from 2.5 to 8.5 feet bgs. Bentonite plug well seals were placed from 1.5 to 2.5 feet bgs. The remaining annular space of the borings was grouted to one foot bgs with Portland cement and bentonite slurry. Deep wells MW-16D, MW-17D and MW-18D were completed to a depth of 20 feet bgs. The well screens were placed from 15 to 20 feet bgs and the filter packs placed from the bottom of the borings (approximately 21 feet bgs) to 13 feet bgs. Bentonite plug well seals were placed from 8.5 to 13 feet bgs. The remaining annular space of the borings was grouted to one foot bgs with a Portland cement and bentonite slurry.

The soil cuttings and associated decontamination and rinse water generated during the drilling and sampling activities were contained in Department of Transportation (DOT)-approved, 17-H, 55-gallon drums, labeled and temporarily stored onsite for disposal following regulatory protocol. The drums were picked up by KR Environmental for disposal.

2.4 Field Activities – Well Development and Sampling

On June 15, 2006, we developed wells MW-16S/MW-16D, MW-17S/MW-17D and MW-18S/MW-18D. Prior to development, we measured the depth to groundwater in each well using an electric water level indicator. Well MW-16S was dry. Approximately 7 to 14 well volumes of groundwater (approximately 1 to 16 gallons) were extracted from wells MW-16D, MW-17S/MW-17D and MW-18S/MW-18D. Each well was hand-bailed with a PVC bailer to remove silt and sediment introduced during the well construction activities. After the removal of the sediment, well MW-16D was additionally pumped to encourage groundwater flow from the formation through the filter pack and into the well. During the well development activities, the groundwater was monitored for pH and turbidity. This information was recorded on Monitoring Well Development Data sheets, copies of which are presented in Appendix C.

Following the development activities, groundwater samples were collected from each well utilizing disposable polyethylene bailers. The samples were decanted through a bottom-emptying device into four laboratory-provided, hydrochloric acid-preserved, 40-milliliter VOA vials. The samples were sealed, labeled, placed in a chilled cooler and subsequently transported to the laboratory using chain-of-custody protocol. A laboratory provided trip blank was included with the sample shipment.

The extracted groundwater was placed into DOT-approved, 17-H, 55-gallon drums, temporarily stored onsite and disposed of by KR Environmental.

2.5 Laboratory Analyses

The soil and groundwater samples were analyzed by Kiff under standard turn-around-time for TPHg and BTEX following United States Environmental Protection Agency (EPA) Test Method 8260B.

2.6 Quality Assurance and Quality Control Procedures

QA/QC measures were performed for each method of analysis with specificity for each analyte listed in the test method's QA/QC. QA/QC measures included the following:

- One method blank for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One sample analyzed in duplicate for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One spiked sample for every ten samples, batch of samples or type of matrix, whichever was more frequent, with spike made at ten times the detection limit or at the analyte level.

Prior to submitting the soil and groundwater samples to the laboratory, the chain-of-custody documentation was reviewed for accuracy and completeness. Reproductions of the laboratory reports and chain-of-custody documentation are presented in Appendix D.

2.7 Monitoring Well Survey

On June 19, 2006, the locations and top of well casing (TOC) elevations for each of the site wells were surveyed in accordance with State Assembly Bill 2886 by Morrow Surveyors of West Sacramento, California. The latitude and longitude for each well location was plotted and each well elevation referenced to the NAVD 88 from GPS observations. A copy of Morrow's Survey Plan is presented in Appendix E.

3.0 INVESTIGATION RESULTS AND FIELD OBSERVATIONS

Soil and groundwater analytical results are discussed below along with observations made in the field.

3.1 Soil and Hydrogeologic Conditions

The ground surface of the Site consists of approximately 1 to 4 inches of asphalt. Beneath the surface layer lies approximately 2.5 to 3 feet of dense, gray to brown, sandy gravel fill. Alluvium underlies the fill extending to the total depths explored at the Site (approximately 21 feet bgs). In each of the direct-push soil borings, silt with some clay exists beneath the overlying fill material between approximately 3 and 8 feet bgs. A black silt layer was generally identified between 2.5 and 4.5 feet bgs, a gray silt layer was identified between 4.5 and 6.5 feet, and a brown silt layer was identified between 6.5 and 8 feet bgs. In borings MW-17 and MW-18, silty fine sand exists beneath the silt layer at depths between 13 to 17 feet bgs extending to the total depth explored at the Site. Petroleum hydrocarbon odors were noted for borings B41, B42 and B43. Copies of the boring logs are presented in Appendix B.

Groundwater was not encountered initially during direct-push drilling activities on March 21, 2006. However, each of the direct-push boring was left open overnight and depth to groundwater measurements collected on March 22, 2006 ranged from 1.65 (B38) to 3.20 feet bgs (B43). A summary of depth to groundwater measurements collected from soil borings B36 through B44 are presented on Table 2.

Following the installation of the nested well pairs, depth to groundwater measurements were collected on June 16, 2006. Well MW-16S was found to be dry. Groundwater was encountered for each of the other recently installed nested well pairs at the following depths below the TOC: MW-16D at 4.14 feet, MW-17S at 6.45 feet, MW-17D at 4.00 feet, MW-18S at 4.69 feet and MW-18D at 3.88 feet. A summary of the groundwater elevation data for wells MW-16S/MW-16D, MW-17S/MW-17D and MW-18S/MW-18D are presented in Table 3.

3.2 Soil Analytical Results

TPHg and BTEX were not reported at concentrations greater than their respective laboratory test method detection limits for the soil samples collected from direct-push borings B36, B37, B38, B39 and B44. TPHg and BTEX were reported for the soil samples collected from a depth of 8 feet bgs from boring B40, from depths of 4, 6 and 8 feet bgs in borings B41 and B42, and from a depth of 4 feet bgs from boring B43 with TPHg concentrations ranging from 8.0 (B40-8) to 1,100 (B41-4) milligrams per kilogram (mg/kg), benzene concentrations ranging from 0.0088 (B43-4) to 11 (B41-4) mg/kg, toluene concentrations ranging from 0.0070 (B43-4) to 23 (B41-6) mg/kg, ethylbenzene concentrations ranging from 0.074 (B43-4) to 15 (B42-6) mg/kg, and total xylenes concentrations ranging from 0.26 (B43-4) to 75 (B42-6) mg/kg. Ethylbenzene was additionally reported for the sample collect from boring B43 at a depth of 6 feet bgs at 0.0072 mg/kg. Benzene, ethylbenzene and total xylenes were

also reported for the sample collected from boring B43 at a depth of 8 feet bgs at respective concentrations of 0.0068, 0.021 and 0.013 mg/kg. Isoconcentration contours for TPHg in soil are depicted on Figure 3, TPHg in Soil. The soil sample analytical results are summarized on Table 1. Laboratory reports and chain-of-custody documentation are presented in Appendix D. Soil samples were not collected from the HSA borings performed at the Site in June 2006.

3.3 Groundwater Analytical Results – Grab Groundwater Samples

TPHg was reported for the grab groundwater samples collected from boring B38 and from borings B40 through B44 at concentrations ranging from 65 (B38-GW) to 58,000 (B42-GW) micrograms per liter (µg/l). Benzene was reported for the samples from borings B40 through B43 at concentrations ranging from 26 (B43-GW) to 5,500 (B41-GW) µg/l. Toluene was reported for the samples from boring B36 and from borings B40 through B43 at concentrations ranging from 0.69 (B36-GW) to 7,700 (B42-GW) µg/l. Ethylbenzene and total xylenes were reported for the samples from borings B40 to B43 at concentrations ranging from 77 (total xylenes, B43-GW) to 6,900 (total xylenes, B42-GW) µg/l. TPHg concentrations and isoconcentration contours are depicted on Figure 4, TPHg in Groundwater. The laboratory results for the grab groundwater samples are summarized on Table 2. Laboratory reports and chain-of-custody documentation are presented in Appendix D.

3.4 Groundwater Analytical Results – Groundwater Monitoring Wells

TPHg was reported for the samples from wells MW-16D, MW-17D and MW-18S at respective concentrations of 5,000, 610 and 120 µg/l. BTEX compounds were also reported for the sample from well MW-16D at respective concentrations of 650, 160, 17 and 260 µg/l. TPHg and BTEX were not reported at concentrations greater than their respective laboratory method detection limits for the trip blank.

TPHg concentrations in groundwater are depicted on Figure 4. Summaries of the groundwater analytical results are presented on Table 3.

3.5 Laboratory QA/QC

We reviewed the analytical laboratory QA/QC provided with the laboratory report. The data show acceptable surrogate recoveries, non-detect results for the method blanks, and acceptable recoveries and relative percent differences for the matrix spikes and matrix spike duplicates. Appropriate recoveries were noted for the laboratory control samples. No qualifications of the data presented herein are necessary, and the data are of sufficient quality for the purposes of this report.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Elevated gasoline-range petroleum hydrocarbons have been identified in soil and groundwater beneath the Site in the vicinity of well MW-16. The results of the soil samples collected from the direct-push borings near well MW-16 show that the lateral extent of the impacts is generally limited to the area just north of the former UST excavation boundaries. The highest petroleum hydrocarbon concentrations in soil are reported between depths of 4 to 6 feet bgs within the gray silt layer in the two borings located north of the eastern portion of the UST excavation (B41 and B42). Low level petroleum hydrocarbon concentrations were reported for soil samples collected from 8 feet bgs in these borings, and from depths of 8 feet bgs and 4, 6 and 8 feet bgs in borings B40 and B43.

Results of grab groundwater samples collected from the direct-push borings and groundwater samples collected from the newly installed nested well pairs show that impacted groundwater is also limited to the area just north of the former UST excavation boundaries. The highest TPHg concentrations in groundwater are reported for the samples collected from former well MW-16, from well MW-16D, and from the grab groundwater samples collected from borings B41 and B42. Well MW-16S was dry. The TPHg concentrations decrease by orders of magnitude in the grab groundwater samples collected from perimeter borings B38, B40, B43 and B44.

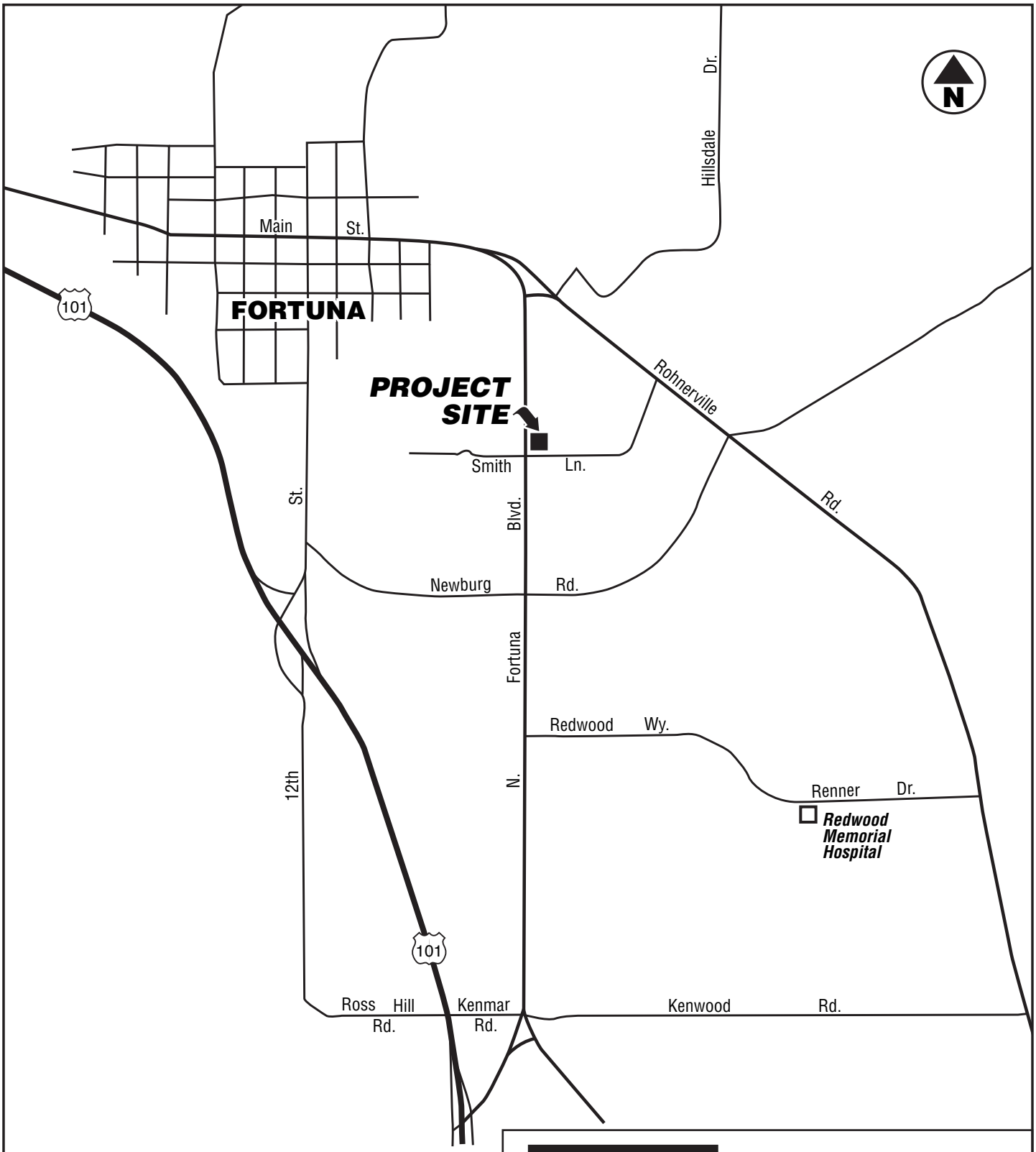
When comparing groundwater elevation data for nested well pairs MW-17S/MW-17D and MW-18S/MW-18D, each showed an upward gradient with vertical differences of 2.27 feet and 0.58 feet, respectively. Based on the results of the soil and groundwater sampling reported herein, we recommend that groundwater monitoring, including the sampling of the new nested well pairs, continue at the Site to evaluate seasonal trends in groundwater elevation, contaminant concentrations at the Site and to further evaluate vertical gradient data for the nested well pairs to confirm the presence of separate water bearing zones. The Third Quarter – 2006 groundwater monitoring event is scheduled for August 2006, pending Caltrans funding. Per the request of the HCDEH, we will further prepare a Remedial Action Options Report for the Site following the Fourth Quarter – 2006, which will include additional discussion regarding the vertical extent of petroleum hydrocarbons in groundwater beneath the Site near the former UST location and present remedial actions which may be warranted at the Site.

5.0 REPORT LIMITATIONS

This report has been prepared exclusively for Caltrans. The information contained herein is only valid as of the date of the report.

The client should recognize that this report is not a comprehensive site characterization and should not be construed as such. The governing county agencies and/or other regulatory agencies may require additional soil and/or groundwater sampling. The findings as presented in this report are predicated on the results of the limited sampling and laboratory testing performed. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein.

Therefore, the report should only be deemed conclusive with respect to the information obtained. No guarantee or warranty of the results of the report is implied within the intent of this report or any subsequent reports, correspondence or consultation either expressed or implied. We strived to perform the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.



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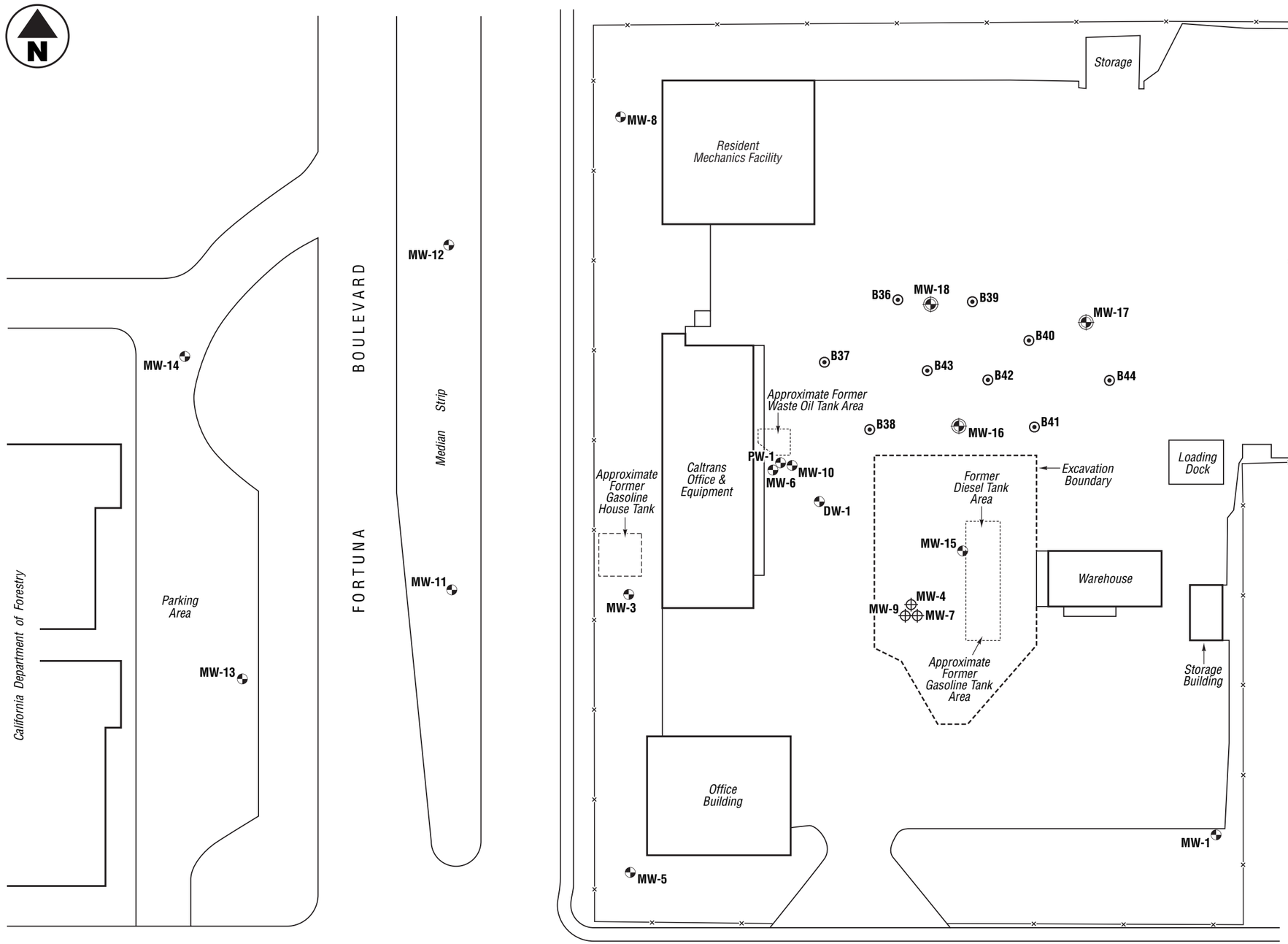
Fortuna Maintenance Station

Caltrans District 1
Humboldt County, California

GEOCON Proj. No. S8875-06-50

VICINITY MAP

Task Order No. 50 | June 2006 | Figure 1



LEGEND:

- MW-1 Approximate Monitoring Well Location
- MW-4 Abandoned Monitoring Well
- B36 Approximate Direct-Push Boring Location
- Approximate Nested Monitoring Well Location

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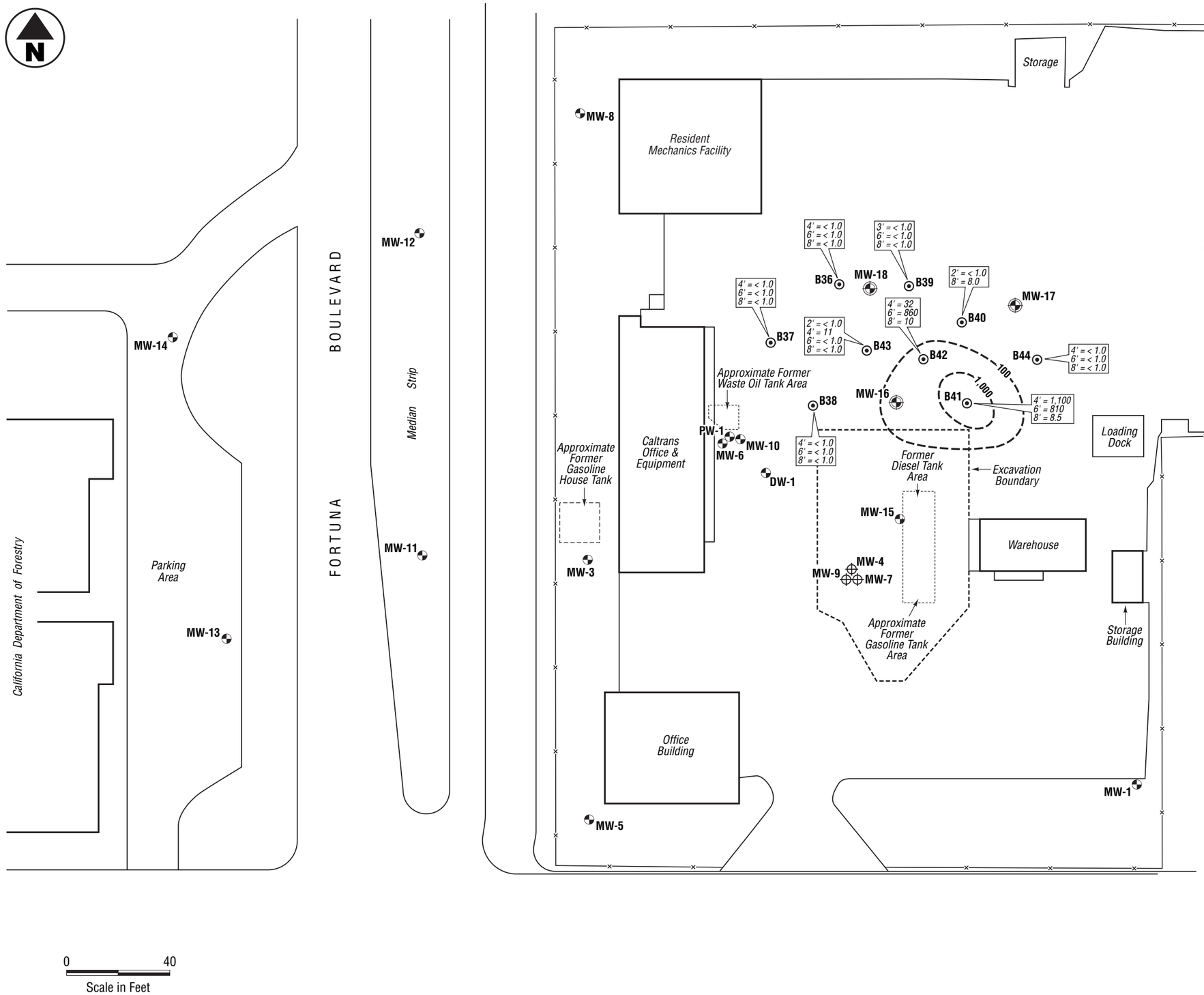
Caltrans District 1
Humboldt County, California

SITE PLAN

GEOCON Proj. No. S8875-06-50

Task Order No. 50 | June 2006 | Figure 2



LEGEND:

- MW-1 Approximate Monitoring Well Location
- MW-4 Abandoned Monitoring Well
- B36 Approximate Direct-Push Boring Location
- MW-16 Approximate Nested Monitoring Well Location
- 100 Petroleum Hydrocarbon Isoconcentration Contour (4-6' bgs) (mg/kg)

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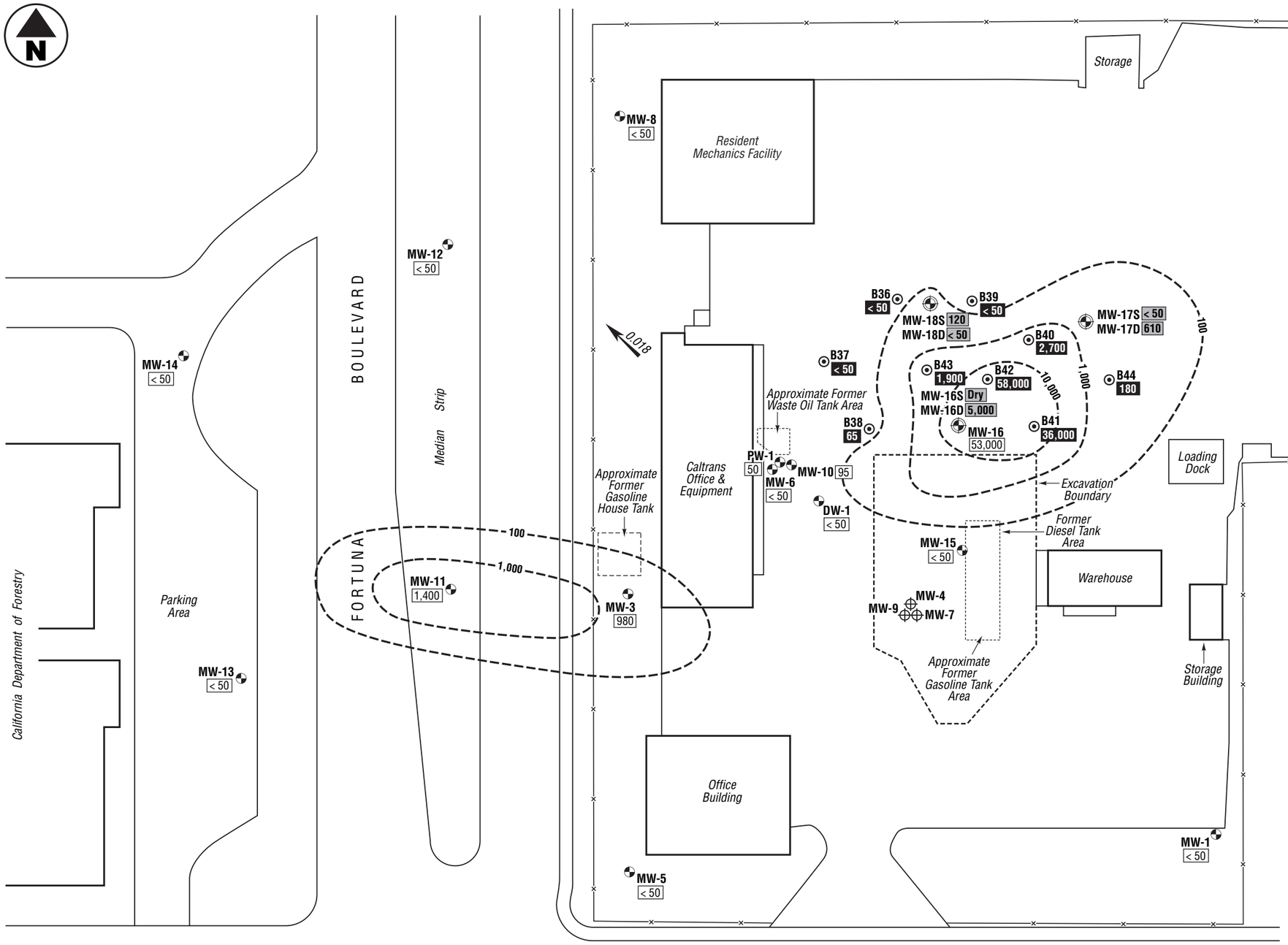
Fortuna Maintenance Station

Caltrans District 1
Humboldt County, California

TPHg in Soil – March 2006

GEOCON Proj. No. S8875-06-50

Task Order No. 50 | June 2006 | Figure 3



LEGEND:

- MW-1 — Approximate Monitoring Well Location
- MW-4 — Abandoned Monitoring Well
- B36 — Approximate Direct-Push Boring Location
- MW-16 — Approximate Nested Monitoring Well Location
- 58,000 — TPHg Concentration in Groundwater (ug/l)(3/22/06)
- 42,000 — TPHg Concentration in Groundwater (ug/l)(5/31/06)
- 5,000 — TPHg Concentration in Groundwater (ug/l)(6/15/06)
- 10,000 — Petroleum Hydrocarbon Isoconcentration Contour (ug/l)
- 0.018 — Groundwater Flow Direction and Gradient (5/31/06)

GEOCON
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Fortuna Maintenance Station

Caltrans District 1
Humboldt County, California

TPHg in Groundwater

GEOCON Proj. No. S8875-06-50

Task Order No. 50 | June 2006 | Figure 4

TABLE 1
SUMMARY OF SOIL ANALYTICAL DATA
FORTUNA MAINTENANCE STATION
FORTUNA, CALIFORNIA

SAMPLE I.D.	DATE	TPHg (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)
B36-4	3/21/06	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
B36-6	3/21/06	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
B36-8	3/21/06	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
B37-4	3/21/06	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
B37-6	3/21/06	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
B37-8	3/21/06	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
B38-4	3/21/06	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
B38-6	3/21/06	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
B38-8	3/21/06	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
B39-3	3/21/06	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
B39-6	3/21/06	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
B39-8	3/21/06	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
B40-2	3/21/06	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
B40-8	3/21/06	8.0	0.31	0.97	0.29	1.3
B41-4	3/21/06	1,100	11	0.83	14	2.3
B41-6	3/21/06	810	4.7	23	14	67
B41-8	3/21/06	8.5	1.0	1.3	0.17	0.82
B42-4	3/21/06	32	1.3	0.11	1.2	6.6
B42-6	3/21/06	860	2.4	22	15	75
B42-8	3/21/06	10	0.99	1.3	0.28	1.3
B43-2	3/21/06	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
B43-4	3/21/06	11	0.0088	0.0070	0.074	0.26
B43-6	3/21/06	<1.0	<0.0050	<0.0050	0.0072	<0.0050
B43-8	3/21/06	<1.0	0.0068	<0.0050	0.021	0.013
B44-4	3/21/06	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
B44-6	3/21/06	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
B44-8	3/21/06	<1.0	<0.0050	<0.0050	<0.0050	<0.0050

Notes: B1-4 = Boring number-Sample depth in feet below surface grade
TPHg = Total petroleum hydrocarbons as gasoline
BTEX = Benzene, toluene, ethylbenzene, and total xylenes
mg/kg = Milligrams per kilogram
< = Less than laboratory reporting limit

TABLE 2
SUMMARY OF GRAB GROUNDWATER ANALYTICAL DATA
FORTUNA MAINTENANCE STATION
FORTUNA, CALIFORNIA

SAMPLE I.D.	DATE	DEPTH TO GROUNDWATER (FEET)	TPHg (µg/l)	B (µg/l)	T (µg/l)	E (µg/l)	X (µg/l)
B36-GW	3/22/06	1.95	<50	<0.50	0.69	<0.50	<0.50
B37-GW	3/22/06	2.03	<50	<0.50	<0.50	<0.50	<0.50
B38-GW	3/22/06	1.65	65	<0.50	<0.50	<0.50	<0.50
B39-GW	3/22/06	1.70	<50	<0.50	<0.50	<0.50	<0.50
B40-GW	3/22/06	2.00	2,700	77	66	140	380
B41-GW	3/22/06	1.70	36,000	5,500	3,400	740	2,600
B42-GW	3/22/06	1.83	58,000	3,800	7,700	1,300	6,900
B43-GW	3/22/06	3.20	1,900	26	3.1	120	77
B44-GW	3/22/06	1.86	180	<0.50	<0.50	<0.50	<0.50

Notes: TPHg = Total petroleum hydrocarbons as gasoline
BTEX = Benzene, toluene, ethylbenzene, and total xylenes
µg/l = Micrograms per kilogram
< = Less than laboratory reporting limit

TABLE 3
SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORTUNA MAINTENANCE STATION
FORTUNA, CALIFORNIA

SAMPLE ID	DATE	TOC ELEVATION (feet)	GROUNDWATER DEPTH (feet)	GROUNDWATER ELEVATION (feet)	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)
MW-1	05/24/89	53.15	---	---	ND	ND	ND	ND	ND
MW-1	10/18/89	53.15	---	---	1.0	ND	1.0	ND	ND
MW-1	11/20/90	53.15	4.17	48.98	<1	<0.3	<0.3	<0.3	<0.6
MW-1	05/18/94	53.15	2.28	50.87	ND	ND	ND	ND	ND
MW-1	09/20/95	53.15	4.25	48.90	56	2.7	6.3	0.8	2.5
MW-1	03/19/96	53.15	2.20	50.95	<50	<0.3	<0.3	<0.3	<0.3
MW-1	09/26/96	53.15	3.40	49.75	<50	<0.5	<0.5	<0.5	<0.5
MW-1	03/03/97	53.15	1.56	51.59	<50	<0.5	<0.5	<0.5	<0.5
MW-1	09/24/97	53.15	2.44	50.71	---	---	---	---	---
MW-1	04/07/98	53.15	1.68	51.47	<50	<0.5	<0.5	<0.5	<0.5
MW-1	03/16/99	53.15	1.62	51.53	<50	<0.5	<0.5	<0.5	<0.5
MW-1	08/31/99	53.15	4.17	48.98	<50	<0.5	<0.5	<0.5	<0.5
MW-1	03/28/00	53.15	2.31	50.84	100 [1]	1.0	3.3	<0.5	2.1
MW-1	10/10/00	53.15	---	---	---	---	---	---	---
MW-1	12/07/00	53.15	Buried under wood and steel		---	---	---	---	---
MW-1	02/23/01	53.15	1.97	51.18	<50	<0.5	<0.5	<0.5	<0.5
MW-1	05/08/01	53.15	2.51	50.64	<50	<0.5	<0.5	<0.5	<0.5
MW-1	09/26/01	53.15	5.00	48.15	<50	<0.5	<0.5	<0.5	<0.5
MW-1	12/12/01	53.15	2.57	50.58	<50	<0.5	<0.5	<0.5	<0.5
MW-1	03/12/02	53.15	1.95	51.20	<50	<0.5	<0.5	<0.5	<0.5
MW-1	05/21/02	53.15	2.55	50.60	<50	<0.5	<0.5	<0.5	<0.5
MW-1	08/28/02	53.15	3.83	49.32	<50	<0.5	<0.5	<0.5	<0.5
MW-1	11/20/02	53.15	3.42	49.73	<50	<0.5	<0.5	<0.5	<0.5
MW-1	02/18/03	53.15	1.96	51.19	---	---	---	---	---
MW-1	05/13/03	53.15	1.36	51.79	<50	<0.5	<0.5	<0.5	<0.5
MW-1	08/19/03	53.15	3.32	49.83	---	---	---	---	---
MW-1	11/19/03	53.15	3.14	50.01	<50	<0.5	<0.5	<0.5	<0.5
MW-1	03/03/04	53.15	1.46	51.69	---	---	---	---	---
MW-1	04/28/04	53.15	2.09	51.06	<50	<0.5	<0.5	<0.5	<0.5
MW-1	09/16/04	53.15	4.13	49.02	82	<0.5	<0.5	<0.5	<0.5
MW-1	02/10/05	53.15	1.89	51.26	<50	<0.5	<0.5	<0.5	<0.5
MW-1	05/12/05	53.15	1.51	51.64	<50	<0.5	<0.5	<0.5	<0.5
MW-1	03/08/06	53.15	3.03	50.12	<50	<0.5	<0.5	<0.5	<1.0
MW-1	05/31/06	53.15	2.20	50.95	<50	<0.5	<0.5	<0.5	<1.0
MW-1[Z]	06/15/06	56.33	---	---	---	---	---	---	---
MW-2	05/24/89	53.09	---	---	ND	ND	ND	ND	ND
MW-2	10/18/89	53.09	---	---	ND	ND	ND	ND	ND

TABLE 3
SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORTUNA MAINTENANCE STATION
FORTUNA, CALIFORNIA

SAMPLE ID	DATE	TOC ELEVATION (feet)	GROUNDWATER DEPTH (feet)	GROUNDWATER ELEVATION (feet)	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)
MW-2	11/20/90	53.09	5.23	47.86	<1	<0.3	<0.3	<0.3	<0.6
MW-2	09/20/95	53.09	4.58	48.51	<50	<0.3	<0.3	<0.3	<0.3
MW-2	03/19/96	53.09	2.70	50.39	---	---	---	---	---
MW-2	09/26/96	53.09	3.14	49.95	---	---	---	---	---
MW-2	03/03/97	53.09	1.90	51.19	<50	<0.5	<0.5	<0.5	<0.5
MW-2	09/24/97	53.09	3.30	49.79	---	---	---	---	---
MW-2	04/07/98	53.09	1.79	51.30	<50	<0.5	<0.5	<0.5	<0.5
MW-2	03/16/99	53.09	2.24	50.85	<50	<0.5	<0.5	<0.5	<0.5
MW-2	08/31/99	53.09	5.24	47.85	<50	<0.5	<0.5	<0.5	<0.5
MW-2	03/28/00	53.09	---	---	---	---	---	---	---
MW-2	10/10/00	53.09	6.08	47.01	130	3.5	17	1.5	14
MW-2	12/07/00	53.09	4.73	48.36	180	<0.5	3.4	1.4	9.6
MW-2	02/23/01	53.09	3.56	49.53	<50	<0.5	<0.5	<0.5	<0.5
MW-2	05/08/01	53.09	2.96	50.13	<50	<0.5	<0.5	<0.5	<0.5
MW-2	09/26/01	53.09	5.15	47.94	<50	<0.5	<0.5	<0.5	<0.5
MW-2	12/12/01	53.09	3.74	49.35	50	<0.5	<0.5	1.5	11
MW-2	03/12/02	53.09	2.71	50.38	<50	<0.5	<0.5	<0.5	<0.5
MW-2	05/21/02	53.09	2.85	50.24	<50	<0.5	<0.5	<0.5	<0.5
MW-2	08/28/02	53.09	5.09	48.00	<50	<0.5	<0.5	<0.5	<0.5
MW-2	11/20/02	53.09	4.56	48.53	<50	<0.5	<0.5	<0.5	<0.5
MW-2	02/18/03	53.09	2.01	51.08	---	---	---	---	---
MW-2	05/13/03	53.09	1.37	51.72	<50	<0.5	<0.5	<0.5	<0.5
MW-2	08/19/03	53.09	4.34	48.75	---	---	---	---	---
MW-2	11/19/03	53.09	3.83	49.26	<50	<0.5	<0.5	<0.5	<0.5
MW-2	03/03/04	53.09	1.51	51.58	---	---	---	---	---
MW-2	04/28/04	53.09	2.16	50.93	<50	<0.5	<0.5	<0.5	<0.5
MW-2	09/16/04	53.09	5.39	47.70	97	<0.5	<0.5	<0.5	<0.5
MW-2	02/10/05	53.09	2.00	51.09	<50	<0.5	<0.5	<0.5	<0.5
MW-2	05/12/05	53.09	1.72	51.37	<50	<0.5	<0.5	<0.5	<0.5
MW-2	03/08/06	53.09	1.56	51.53	<50	<0.5	<0.5	<0.5	<1.0
MW-2	05/31/06	53.09	2.42	50.67	<50	<0.5	<0.5	<0.5	<1.0
MW-2[2]	06/15/06	56.32	---	---	---	---	---	---	---
MW-3	05/24/89	54.00	---	---	580	38	3.0	10	26
MW-3	10/18/89	54.00	---	---	450	73	6.0	10	7
MW-3	11/20/90	54.00	7.48	46.52	2,100	200	10	80	28
MW-3	05/18/94	54.00	4.35	49.65	1,400	18	ND	ND	ND
MW-3	09/20/95	54.00	7.35	46.65	310	32	5.7	11	4.6

TABLE 3
SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORTUNA MAINTENANCE STATION
FORTUNA, CALIFORNIA

SAMPLE ID	DATE	TOC ELEVATION (feet)	GROUNDWATER DEPTH (feet)	GROUNDWATER ELEVATION (feet)	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)
MW-3	03/19/96	54.00	3.40	50.60	---	---	---	---	---
MW-3	09/26/96	54.00	6.96	47.04	---	---	---	---	---
MW-3	03/03/97	54.00	2.97	51.03	910	51	0.9	15	4.6
MW-3	09/24/97	54.00	6.72	47.28	360	13	0.82	9.4	3.9
MW-3	04/08/98	54.00	2.81	51.19	1,500	52	2.0	40	9.4
MW-3	10/07/98	54.00	7.38	46.62	200	2.9	1.4	4.3	4.1
MW-3	03/16/99	54.00	2.32	51.68	900	36	<0.5	16	6.3
MW-3	08/31/99	54.00	7.12	46.88	<50	2.9	<0.5	3.6	2.9
MW-3	03/29/00	54.00	3.58	50.42	1100 [1]	51	6.8	24	3.1
MW-3	10/11/00	54.00	6.88	47.12	300	2.2	<0.5	2.4	2.4
MW-3	12/07/00	54.00	Buried under mud and steel		---	---	---	---	---
MW-3	02/23/01	54.00	3.35	50.65	510	8.7	2.9	7.5	4.9
MW-3	05/08/01	54.00	4.62	49.38	690	33	5.3	10.0	7.7
MW-3	09/26/01	54.00	5.87	48.13	510	13	1.6	9.0	8.4
MW-3	12/12/01	54.00	3.33	50.67	1,600	45	6.6	16	13
MW-3	03/12/02	54.00	3.35	50.65	680	1.0	3.1	1.2	6.2
MW-3	05/21/02	54.00	4.78	49.22	1,100	29	5.7	26	13
MW-3	08/28/02	54.00	7.14	46.86	280	7.3	1.6	2.6	2.7
MW-3	11/20/02	54.00	6.34	47.66	610	3.8	6.7	4.0	7.3
MW-3	02/18/03	54.00	3.64	50.36	450	2.4	3.5	<0.5	7.1
MW-3	05/13/03	54.00	2.82	51.18	1,700	26	13	33	16
MW-3	08/19/03	54.00	5.02	48.98	990	37	<0.5	16	7.6
MW-3	11/19/03	54.00	4.69	49.31	80	1.8	0.7	<0.5	<0.5
MW-3	03/03/04	54.00	2.56	51.44	<50	<0.5	3.0	<0.5	3.0
MW-3	04/28/04	54.00	4.38	49.62	620	60	5.9	19	11
MW-3	09/17/04	54.00	6.35	47.65	570	12	4.9	9.4	2.7
MW-3	02/10/05	54.00	3.89	50.11	1,300	63	9.7	31	8.0
MW-3	05/12/05	54.00	3.42	50.58	980	21	7.4	15	4.8
MW-3	03/08/06	54.00	1.92	52.08	1,800	43	2.8	23	6.6
MW-3	05/31/06	54.00	4.61	49.39	980	33	3.2	18	7.9
MW-3 [2]	06/15/06	57.22	---	---	---	---	---	---	---
MW-4	05/24/89	---	---	---	67,000	17,000	25,000	23,000	12,000
MW-4	10/18/89	Well Abandoned		---	---	---	---	---	---
MW-5	05/24/89	53.29	---	---	ND	ND	ND	ND	ND
MW-5	10/18/89	53.29	---	---	ND	ND	ND	ND	ND
MW-5	11/20/90	53.29	4.69	48.60	<1	<0.3	<0.3	<0.3	<0.6

TABLE 3
SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORTUNA MAINTENANCE STATION
FORTUNA, CALIFORNIA

SAMPLE ID	DATE	TOC ELEVATION (feet)	GROUNDWATER DEPTH (feet)	GROUNDWATER ELEVATION (feet)	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)
MW-5	09/20/95	53.29	5.01	48.28	<50	<0.3	0.67	<0.3	<0.3
MW-5	03/19/96	53.29	2.35	50.94	---	---	---	---	---
MW-5	09/26/96	53.29	4.43	48.86	---	---	---	---	---
MW-5	03/03/97	53.29	2.49	50.80	<50	<0.5	<0.5	<0.5	<0.5
MW-5	09/24/97	53.29	4.15	49.14	<50	<0.5	<0.5	<0.5	<0.5
MW-5	04/07/98	53.29	2.46	50.83	<50	0.59	<0.5	<0.5	<0.5
MW-5	10/06/98	53.29	4.75	48.54	<50	<0.5	<0.5	<0.5	<0.5
MW-5	03/16/99	53.29	2.14	51.15	<50	<0.5	<0.5	<0.5	<0.5
MW-5	08/31/99	53.29	4.77	48.52	<50	<0.5	<0.5	<0.5	<0.5
MW-5	03/28/00	53.29	2.75	50.54	100 [1]	<0.5	1.3	<0.5	<0.5
MW-5	10/10/00	53.29	---	---	---	---	---	---	---
MW-5	12/07/00	53.29	Buried under construction debris		---	---	---	---	---
MW-5	02/23/01	53.29	Buried under construction debris		---	---	---	---	---
MW-5	05/08/01	53.29	Buried under construction debris		---	---	---	---	---
MW-5	09/26/01	53.29	4.12	49.17	<50	<0.5	<0.5	<0.5	<0.5
MW-5	12/12/01	53.29	2.72	50.57	<50	<0.5	<0.5	<0.5	<0.5
MW-5	03/12/02	53.29	2.68	50.61	<50	<0.5	<0.5	<0.5	<0.5
MW-5	05/21/02	53.29	3.31	49.98	<50	<0.5	<0.5	<0.5	<0.5
MW-5	08/28/02	53.29	4.63	48.66	<50	<0.5	<0.5	<0.5	<0.5
MW-5	11/20/02	53.29	4.05	49.24	<50	<0.5	<0.5	<0.5	<0.5
MW-5	02/18/03	53.29	2.89	50.40	---	---	---	---	---
MW-5	05/13/03	53.29	2.35	50.94	<50	<0.5	<0.5	<0.5	<0.5
MW-5	08/19/03	53.29	3.63	49.66	---	---	---	---	---
MW-5	11/19/03	53.29	3.25	50.04	<50	<0.5	<0.5	<0.5	<0.5
MW-5	03/03/04	53.29	2.32	50.97	---	---	---	---	---
MW-5	04/28/04	53.29	3.03	50.26	<50	<0.5	<0.5	<0.5	<0.5
MW-5	09/16/04	53.29	4.35	48.94	85	<0.5	<0.5	<0.5	<0.5
MW-5	02/10/05	53.29	2.91	50.38	<50	<0.5	<0.5	<0.5	<0.5
MW-5	05/12/05	53.29	2.60	50.69	<50	<0.5	<0.5	<0.5	<0.5
MW-5	03/08/06	53.29	2.78	50.51	<50	<0.5	<0.5	<0.5	<1.0
MW-5	05/31/06	53.29	3.93	49.36	<50	<0.5	<0.5	<0.5	<1.0
MW-5[2]	06/15/06	56.48	---	---	---	---	---	---	---
MW-6	05/24/89	54.05	---	---	3,200	3,000	3.0	1.0	1.0
MW-6	10/18/89	54.05	---	---	9,600	7,300	170	330	280
MW-6	11/20/90	54.05	8.25	45.80	6,400	4,400	16	220	20
MW-6	05/18/94	54.05	5.80	48.25	120	ND	ND	ND	ND
MW-6	09/19/95	54.05	7.98	46.07	8,900	830	220	91	200

TABLE 3
SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORTUNA MAINTENANCE STATION
FORTUNA, CALIFORNIA

SAMPLE ID	DATE	TOC ELEVATION (feet)	GROUNDWATER DEPTH (feet)	GROUNDWATER ELEVATION (feet)	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)
MW-6	03/19/96	54.05	5.34	46.71	---	---	---	---	---
MW-6	09/26/96	54.05	6.18	47.87	---	---	---	---	---
MW-6	03/03/97	54.05	3.48	50.57	<50	<0.5	0.9	<0.5	<0.5
MW-6	09/24/97	54.05	7.11	46.94	---	---	---	---	---
MW-6	04/08/98	54.05	1.66	52.39	<50	<0.5	<0.5	<0.5	<0.5
MW-6	03/17/99	54.05	1.26	52.79	<50	<0.5	<0.5	<0.5	<0.5
MW-6	08/31/99	54.05	7.32	46.73	<50	6.0	<0.5	<0.5	<0.5
MW-6	03/29/00	54.05	2.61	51.44	100 [1]	0.7	1.1	<0.5	<0.5
MW-6	10/10/00	54.05	7.64	46.41	<50	2.4	1.1	<0.5	<0.5
MW-6	12/07/00	54.05	5.71	48.34	<50	<0.5	<0.5	<0.5	<0.5
MW-6	02/22/01	54.05	4.00	50.05	<50	<0.5	<0.5	<0.5	<0.5
MW-6	05/08/01	54.05	4.35	49.70	<50	<0.5	<0.5	<0.5	<0.5
MW-6	09/26/01	54.05	5.96	48.09	77	2.6	0.58	<0.5	0.51
MW-6	12/12/01	54.05	4.18	49.87	66	0.83	<0.5	<0.5	0.75
MW-6	03/12/02	54.05	2.90	51.15	<50	<0.5	<0.5	<0.5	<0.5
MW-6	05/21/02	54.05	4.01	50.04	<50	<0.5	<0.5	<0.5	<0.5
MW-6	08/28/02	54.05	7.44	46.61	94	4.4	<0.5	0.51	<0.5
MW-6	11/20/02	54.05	7.59	46.46	190	6.7	<0.5	<0.5	<0.5
MW-6	02/18/03	54.05	3.27	50.78	<50	<0.5	<0.5	<0.5	<0.5
MW-6	05/13/03	54.05	1.54	52.51	<50	<0.5	<0.5	<0.5	<0.5
MW-6	08/19/03	54.05	5.56	48.49	<50	0.53	<0.5	<0.5	<0.5
MW-6	11/19/03	54.05	5.89	48.16	<50	0.9	<0.5	<0.5	<0.5
MW-6	03/03/04	54.05	1.29	52.76	2,300	69	41	17	21
MW-6	04/28/04	54.05	3.58	50.47	<50	0.60	<0.5	0.60	<0.5
MW-6	09/16/04	54.05	7.13	46.92	160	0.71	<0.5	<0.5	<0.5
MW-6	02/10/05	54.05	3.18	50.87	<50	<0.5	<0.5	<0.5	<0.5
MW-6	05/12/05	54.05	2.56	51.49	<50	<0.5	<0.5	<0.5	0.66
MW-6	03/08/06	54.05	0.89	53.16	<50	<0.5	<0.5	<0.5	<1.0
MW-6	05/31/06	54.05	3.35	50.70	<50	<0.5	<0.5	<0.5	<1.0
MW-6 [2]	06/15/06	57.23	---	---	---	---	---	---	---
MW-7	10/18/89	54.33	---	---	580	56	120	21	130
MW-7	11/20/90	54.33	13.44	40.89	<1	<0.3	<0.3	<0.3	<0.6
MW-7	05/18/94	54.33	11.68	42.65	ND	ND	ND	ND	ND
MW-7	09/19/95	54.33	13.59	40.74	68	5.6	7.8	1.2	3.2
MW-7	03/19/96	54.33	9.65	44.68	---	---	---	---	---
MW-7	09/26/96	54.33	13.75	40.58	---	---	---	---	---
MW-7	03/03/97	54.33	0.79	53.54	<50	<0.5	<0.5	<0.5	<0.5

TABLE 3
SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORTUNA MAINTENANCE STATION
FORTUNA, CALIFORNIA

SAMPLE ID	DATE	TOC ELEVATION (feet)	GROUNDWATER DEPTH (feet)	GROUNDWATER ELEVATION (feet)	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)
MW-7	09/24/97	54.33	13.03	41.30	---	---	---	---	---
MW-7	04/08/98	54.33	8.22	46.11	<50	<0.5	<0.5	<0.5	<0.5
MW-7	03/16/99	54.33	8.45	45.88	<50	<0.5	0.5	<0.5	0.6
MW-7	08/31/99	54.33	13.19	41.14	<50	<0.5	<0.5	<0.5	<0.5
MW-7	03/28/00	Well Abandoned		---	---	---	---	---	---
MW-8	10/18/89	53.68	---	---	ND	ND	ND	ND	ND
MW-8	11/20/90	53.68	12.11	41.57	<1	<0.3	<0.3	<0.3	<0.6
MW-8	04/15/91	53.68	---	---	ND	ND	ND	ND	ND
MW-8	05/19/93	53.68	---	---	ND	ND	ND	ND	ND
MW-8	11/17/93	53.68	---	---	ND	ND	ND	ND	ND
MW-8	05/18/94	53.68	8.14	45.54	ND	ND	ND	ND	ND
MW-8	09/20/95	53.68	12.40	41.28	<50	<0.3	<0.3	<0.3	<0.3
MW-8	03/19/96	53.68	7.03	46.65	<50	<0.3	<0.3	<0.3	<0.3
MW-8	09/26/96	53.68	12.59	41.09	<50	<0.5	<0.5	<0.5	<0.5
MW-8	03/03/97	53.68	6.61	47.07	<50	<0.5	<0.5	<0.5	<0.5
MW-8	09/24/97	53.68	12.04	41.64	---	---	---	---	---
MW-8	04/07/98	53.68	5.38	48.30	<50	<0.5	<0.5	<0.5	<0.5
MW-8	03/16/99	53.68	4.71	48.97	<50	<0.5	<0.5	<0.5	<0.5
MW-8	08/31/99	53.68	12.42	41.26	<50	<0.5	<0.5	<0.5	<0.5
MW-8	03/28/00	53.68	6.22	47.46	100 [1]	1.4	3.2	<0.5	<0.5
MW-8	10/11/00	53.68	12.05	41.63	<50	<0.5	<0.5	<0.5	<0.5
MW-8	12/07/00	53.68	4.73	48.95	<50	<0.5	<0.5	<0.5	<0.5
MW-8	02/22/01	53.68	7.10	46.58	110	0.94	0.68	<0.5	<0.5
MW-8	05/08/01	53.68	7.43	46.25	<50	<0.5	<0.5	<0.5	<0.5
MW-8	09/26/01	53.68	11.63	42.05	<50	<0.5	<0.5	<0.5	<0.5
MW-8	12/12/01	53.68	7.06	46.62	<50	<0.5	<0.5	<0.5	<0.5
MW-8	03/12/02	53.68	6.15	47.53	<50	<0.5	<0.5	<0.5	<0.5
MW-8	05/21/02	53.68	6.75	46.93	<50	<0.5	<0.5	<0.5	<0.5
MW-8	08/28/02	53.68	11.90	41.78	<50	<0.5	<0.5	<0.5	<0.5
MW-8	11/20/02	53.68	12.12	41.56	<50	<0.5	<0.5	<0.5	<0.5
MW-8	02/18/03	53.68	6.40	47.28	---	---	---	---	---
MW-8	05/13/03	53.68	4.82	48.86	<50	<0.5	<0.5	<0.5	<0.5
MW-8	08/19/03	53.68	11.01	42.67	---	---	---	---	---
MW-8	11/19/03	53.68	9.92	43.76	<50	<0.5	<0.5	<0.5	<0.5
MW-8	03/03/04	53.68	5.26	48.42	---	---	---	---	---
MW-8	04/28/04	53.68	6.63	47.05	<50	<0.5	<0.5	<0.5	<0.5
MW-8	09/16/04	53.68	11.74	41.94	91	<0.5	<0.5	<0.5	<0.5

TABLE 3
SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORTUNA MAINTENANCE STATION
FORTUNA, CALIFORNIA

SAMPLE ID	DATE	TOC ELEVATION (feet)	GROUNDWATER DEPTH (feet)	GROUNDWATER ELEVATION (feet)	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)
MW-8	02/10/05	53.68	6.50	47.18	<50	<0.5	<0.5	<0.5	<0.5
MW-8	05/12/05	53.68	5.68	48.00	<50	<0.5	<0.5	<0.5	<0.5
MW-8	03/08/06	53.68	3.80	49.88	<50	<0.5	<0.5	<0.5	<1.0
MW-8	05/31/06	53.68	6.86	46.82	<50	<0.5	<0.5	<0.5	<1.0
MW-8[z]	06/15/06	56.89	---	---	---	---	---	---	---
MW-9	11/20/90	54.49	4.99	49.50	28,000	5,300	4,100	1,000	5,300
MW-9	05/18/94	54.49	2.74	51.75	70	11	0.6	ND	5.8
MW-9	09/19/95	54.49	4.69	49.80	2,000	350	27	280	110
MW-9	03/19/96	54.49	1.93	52.56	---	---	---	---	---
MW-9	09/26/96	54.49	4.51	49.98	---	---	---	---	---
MW-9	03/03/97	54.49	1.61	52.88	50	9.0	0.56	2.4	1.5
MW-9	09/24/97	54.49	4.25	50.24	---	---	---	---	---
MW-9	04/08/98	54.49	1.63	52.86	<50	<0.5	<0.5	<0.5	<0.5
MW-9	03/16/99	54.49	1.60	52.89	500	20	1.2	8.0	6.2
MW-9	08/31/99	54.49	4.70	49.79	600	34	1.0	6.1	4.2
MW-9	03/28/00	Well Abandoned		---	---	---	---	---	---
MW-10	10/18/89	54.21	---	---	4,300	3,900	3	ND	9.0
MW-10	11/20/90	54.21	8.48	45.73	3,100	3,000	0.3	0.5	1.0
MW-10	05/18/94	54.21	4.67	49.54	ND	ND	ND	ND	ND
MW-10	09/19/95	54.21	8.06	46.15	160	21	18	3.0	8.0
MW-10	03/19/96	54.21	2.79	51.42	---	---	---	---	---
MW-10	09/26/96	54.21	4.32	49.89	---	---	---	---	---
MW-10	03/03/97	54.21	6.01	48.20	<50	<0.5	<0.5	<0.5	0.6
MW-10	09/24/97	54.21	7.36	46.85	---	---	---	---	---
MW-10	04/08/98	54.21	2.97	51.24	<50	<0.5	<0.5	<0.5	<0.5
MW-10	03/17/99	54.21	1.63	52.58	<50	<0.5	<0.5	<0.5	<0.5
MW-10	08/31/99	54.21	7.59	46.62	<50	<0.5	<0.5	<0.5	<0.5
MW-10	03/29/00	54.21	3.01	51.20	<50	<0.5	<0.5	<0.5	<0.5
MW-10	10/10/00	54.21	7.67	46.54	<50	3.3	6.5	0.66	5.6
MW-10	12/07/00	54.21	5.53	48.68	150	<0.5	2.3	1.3	7.1
MW-10	02/22/01	54.21	4.31	49.90	<50	<0.5	<0.5	<0.5	<0.5
MW-10	05/08/01	54.21	6.33	47.88	<50	<0.5	<0.5	<0.5	<0.5
MW-10	09/26/01	54.21	10.00	44.21	66	1.7	<0.5	<0.5	<0.5
MW-10	12/12/01	54.21	4.83	49.38	<50	<0.5	<0.5	<0.5	<0.5
MW-10	03/12/02	54.21	3.35	50.86	<50	<0.5	<0.5	<0.5	<0.5
MW-10	05/21/02	54.21	4.35	49.86	<50	<0.5	<0.5	<0.5	<0.5

TABLE 3
SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORTUNA MAINTENANCE STATION
FORTUNA, CALIFORNIA

SAMPLE ID	DATE	TOC ELEVATION (feet)	GROUNDWATER DEPTH (feet)	GROUNDWATER ELEVATION (feet)	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)
MW-10	08/28/02	54.21	7.64	46.57	<50	<0.5	<0.5	<0.5	<0.5
MW-10	11/20/02	54.21	10.89	43.32	<50	<0.5	<0.5	<0.5	<0.5
MW-10	02/18/03	54.21	3.43	50.78	---	---	---	---	---
MW-10	05/13/03	54.21	2.02	52.19	<50	<0.5	<0.5	<0.5	<0.5
MW-10	08/19/03	54.21	5.72	48.49	---	---	---	---	---
MW-10	11/19/03	54.21	6.16	48.05	<50	<0.5	<0.5	<0.5	<0.5
MW-10	03/03/04	54.21	1.77	52.44	---	---	---	---	---
MW-10	04/28/04	54.21	3.78	50.43	<50	<0.5	<0.5	<0.5	<0.5
MW-10	09/16/04	54.21	7.36	46.85	160	<0.5	<0.5	<0.5	<0.5
MW-10	02/10/05	54.21	3.47	50.74	<50	<0.5	<0.5	<0.5	<0.5
MW-10	05/12/05	54.21	2.85	51.36	160	<0.5	<0.5	<0.5	<0.5
MW-10	03/08/06	54.21	1.61	52.60	84	<0.5	<0.5	<0.5	<1.0
MW-10	05/31/06	54.21	3.62	50.59	95	<0.5	<0.5	<0.5	<1.0
MW-10[2]	06/15/06	57.45	---	---	---	---	---	---	---
MW-11	06/04/90	55.27	---	---	7,900	300	38	30	85
MW-11	11/20/90	55.27	9.54	45.73	5,100	370	56	43	70
MW-11	09/20/95	55.27	9.36	45.91	4,900	290	44	51	11
MW-11	03/19/96	55.27	5.21	50.06	---	---	---	---	---
MW-11	09/26/96	55.27	8.91	46.36	---	---	---	---	---
MW-11	03/04/97	55.27	4.78	50.49	4,000	<0.5	28	29	26
MW-11	09/24/97	55.27	9.04	46.23	---	---	---	---	---
MW-11	04/08/98	55.27	4.58	50.69	5,800	160	31	19	13
MW-11	03/17/99	55.27	4.01	51.26	4,900	81	15	17	8.6
MW-11	08/31/99	55.27	9.19	46.08	4,300	51	19	25	9.4
MW-11	03/29/00	55.27	5.58	49.69	1100 [1]	49	13	8.3	4.0
MW-11	10/10/00	55.27	8.77	46.50	3,500	81	21	16	7.9
MW-11	12/07/00	55.27	6.18	49.09	2,200	230	<2.5	69	8.3
MW-11	02/23/01	55.27	4.84	50.43	490	3.7	3.2	2.8	2.0
MW-11	05/08/01	55.27	6.20	49.07	1,200	16	2.2	1.3	14
MW-11	09/26/01	55.27	7.51	47.76	2,300	72	16	27	20
MW-11	12/12/01	55.27	5.10	50.17	<50	<0.5	<0.5	<0.5	<0.5
MW-11	03/12/02	55.27	5.15	50.12	2,300	41	5.8	7.6	10
MW-11	05/21/02	55.27	6.64	48.63	4,500	45	23	30	17
MW-11	08/28/02	55.27	9.27	46.00	400	0.95	2.4	2.9	3.5
MW-11	11/20/02	55.27	8.31	46.96	<50	<0.5	<0.5	<0.5	<0.5
MW-11	02/18/03	55.27	5.09	50.18	4,200	67	37	13	23
MW-11	05/13/03	55.27	4.71	50.56	4,600	97	50	15	26

TABLE 3
SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORTUNA MAINTENANCE STATION
FORTUNA, CALIFORNIA

SAMPLE ID	DATE	TOC ELEVATION (feet)	GROUNDWATER DEPTH (feet)	GROUNDWATER ELEVATION (feet)	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)
MW-11	08/19/03	55.27	6.45	48.82	530	1.1	<0.5	<0.5	<0.5
MW-11	11/19/03	55.27	6.20	49.07	<50	<0.5	<0.5	<0.5	<0.5
MW-11	03/03/04	55.27	4.28	50.99	<50	<0.5	<0.5	<0.5	<0.5
MW-11	04/28/04	55.27	6.04	49.23	2,100	92	44	26	19
MW-11	09/17/04	55.27	8.03	47.24	3,000	46	22	21	17.1
MW-11	02/10/05	55.27	5.49	49.78	1,600	25	19	12	6.2
MW-11	05/12/05	55.27	5.22	50.05	1,600	30	23	15	14
MW-11	03/08/06	55.27	3.15	52.12	1,100	10	4.2	7.5	5.8
MW-11	05/31/06	55.27	6.12	49.15	1,400	30	8.1	17	16.9
MW-11[2]	06/15/06	58.50	---	---	---	---	---	---	---
MW-12	06/04/90	55.30	---	---	ND	ND	ND	ND	ND
MW-12	11/20/90	55.30	12.67	42.63	<1	<0.3	<0.3	<0.3	<0.6
MW-12	04/15/91	55.30	---	---	ND	ND	ND	ND	ND
MW-12	05/19/93	55.30	---	---	ND	ND	ND	ND	ND
MW-12	11/17/93	55.30	---	---	ND	ND	ND	ND	ND
MW-12	05/18/94	55.30	8.36	46.94	ND	ND	ND	ND	ND
MW-12	09/20/95	55.30	12.49	42.81	<50	<0.3	<0.3	<0.3	<0.3
MW-12	03/19/96	55.30	6.68	48.62	<50	<0.3	<0.3	<0.3	<0.3
MW-12	09/26/96	55.30	12.56	42.74	<50	<0.5	<0.5	<0.5	<0.5
MW-12	03/04/97	55.30	5.52	49.78	<50	<0.5	1.0	<0.5	2.1
MW-12	09/24/97	55.30	12.18	43.12	---	---	---	---	---
MW-12	04/08/98	55.30	3.44	51.86	<50	<0.5	0.96	<0.5	0.63
MW-12	03/17/99	55.30	2.86	52.44	<50	<0.5	<0.5	<0.5	<0.5
MW-12	08/31/99	55.30	---	---	---	---	---	---	---
MW-12	03/28/00	55.30	---	---	---	---	---	---	---
MW-12	10/10/00	55.30	11.30	44.00	<50	<0.5	<0.5	<0.5	<0.5
MW-12	12/07/00	55.30	3.97	51.33	<50	<0.5	<0.5	<0.5	<0.5
MW-12	02/22/01	55.30	4.80	50.50	110	1.2	2.9	<0.5	1.8
MW-12	05/08/01	55.30	7.32	47.98	<50	<0.5	<0.5	<0.5	<0.5
MW-12	09/26/01	55.30	9.65	45.65	<50	<0.5	<0.5	<0.5	<0.5
MW-12	12/12/01	55.30	3.98	51.32	<50	<0.5	<0.5	<0.5	<0.5
MW-12	03/12/02	55.30	5.02	50.28	<50	<0.5	<0.5	<0.5	<0.5
MW-12	05/21/02	55.30	7.38	47.92	<50	<0.5	<0.5	<0.5	<0.5
MW-12	08/28/02	55.30	12.30	43.00	<50	<0.5	<0.5	<0.5	<0.5
MW-12	11/20/02	55.30	11.92	43.38	<50	<0.5	<0.5	<0.5	<0.5
MW-12	02/18/03	55.30	5.46	49.84	---	---	---	---	---
MW-12	05/13/03	55.30	3.95	51.35	<50	<0.5	<0.5	<0.5	<0.5

TABLE 3
SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORTUNA MAINTENANCE STATION
FORTUNA, CALIFORNIA

SAMPLE ID	DATE	TOC ELEVATION (feet)	GROUNDWATER DEPTH (feet)	GROUNDWATER ELEVATION (feet)	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)
MW-12	08/19/03	55.30	6.62	48.68	---	---	---	---	---
MW-12	11/19/03	55.30	4.62	50.68	<50	<0.5	<0.5	<0.5	<0.5
MW-12	03/03/04	55.30	3.26	52.04	---	---	---	---	---
MW-12	04/28/04	55.30	6.94	48.36	<50	0.83	0.56	0.59	1.8
MW-12	09/16/04	55.30	10.61	44.69	<50	<0.5	<0.5	<0.5	<0.5
MW-12	02/10/05	55.30	5.81	49.49	<50	<0.5	<0.5	<0.5	<0.5
MW-12	05/12/05	55.30	5.89	49.41	<50	<0.5	<0.5	<0.5	<0.5
MW-12	03/08/06	55.30	1.61	53.69	<50	<0.5	<0.5	<0.5	<1.0
MW-12	05/31/06	55.30	6.84	48.46	<50	<0.5	<0.5	<0.5	<1.0
MW-12[2]	06/15/06	58.55	---	---	---	---	---	---	---
MW-13	11/20/90	52.93	6.13	46.80	<1	<0.3	<0.3	<0.3	<0.6
MW-13	09/20/95	52.93	5.13	47.80	<50	<0.3	0.52	<0.3	<0.3
MW-13	03/19/96	52.93	7.00	45.93	---	---	---	---	---
MW-13	09/26/96	52.93	6.55	46.38	---	---	---	---	---
MW-13	03/04/97	52.93	4.30	48.63	<50	<0.5	<0.5	<0.5	<0.5
MW-13	09/24/97	52.93	8.17	44.76	<50	<0.5	0.69	0.79	4.3
MW-13	04/08/98	52.93	1.85	51.08	<50	<0.5	<0.5	<0.5	<0.5
MW-13	10/07/98	52.93	5.42	47.51	<50	<0.5	<0.5	<0.5	<0.5
MW-13	03/16/99	52.93	1.70	51.23	<50	<0.5	<0.5	<0.5	<0.5
MW-13	08/31/99	52.93	5.46	47.47	<50	<0.5	<0.5	<0.5	<0.5
MW-13	03/28/00	52.93	2.55	50.38	200 [1]	0.6	1.5	<0.5	<0.5
MW-13	10/11/00	52.93	5.24	47.69	<50	<0.5	3.8	1.0	5.0
MW-13	12/07/00	52.93	3.34	49.59	180	<0.5	4.0	1.8	13
MW-13	02/22/01	52.93	2.09	50.84	<50	<0.5	<0.5	<0.5	<0.5
MW-13	05/08/01	52.93	3.15	49.78	<50	<0.5	<0.5	<0.5	<0.5
MW-13	09/26/01	52.93	4.18	48.75	<50	<0.5	<0.5	<0.5	<0.5
MW-13	12/12/01	52.93	2.29	50.64	<50	<0.5	<0.5	<0.5	<0.5
MW-13	03/12/02	52.93	2.40	50.53	<50	<0.5	<0.5	<0.5	<0.5
MW-13	05/21/02	52.93	4.70	48.23	<50	<0.5	<0.5	<0.5	<0.5
MW-13	08/28/02	52.93	4.78	48.15	<50	<0.5	<0.5	<0.5	<0.5
MW-13	11/20/02	52.93	4.71	48.22	<50	<0.5	<0.5	<0.5	<0.5
MW-13	02/18/03	52.93	2.73	50.20	---	---	---	---	---
MW-13	05/13/03	52.93	2.18	50.75	<50	<0.5	<0.5	<0.5	<0.5
MW-13	08/19/03	52.93	3.48	49.45	---	---	---	---	---
MW-13	11/19/03	52.93	3.62	49.31	<50	<0.5	<0.5	<0.5	<0.5
MW-13	03/03/04	52.93	1.83	51.10	---	---	---	---	---
MW-13	04/28/04	52.93	2.58	50.35	<50	<0.5	0.70	<0.5	0.50

TABLE 3
SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORTUNA MAINTENANCE STATION
FORTUNA, CALIFORNIA

SAMPLE ID	DATE	TOC ELEVATION (feet)	GROUNDWATER DEPTH (feet)	GROUNDWATER ELEVATION (feet)	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)
MW-13	09/16/04	52.93	4.26	48.67	86	<0.5	<0.5	<0.5	<0.5
MW-13	02/10/05	52.93	2.77	50.16	<50	<0.5	<0.5	<0.5	<0.5
MW-13	05/12/05	52.93	2.42	50.51	<50	<0.5	<0.5	<0.5	<0.5
MW-13	03/08/06	52.93	1.52	51.41	<50	<0.5	<0.5	<0.5	<1.0
MW-13	05/31/06	52.93	4.20	48.73	<50	<0.5	<0.5	<0.5	<1.0
MW-13[2]	06/15/06	56.20	---	---	---	---	---	---	---
MW-14	11/20/90	52.07	8.73	43.34	<1	<0.3	<0.3	<0.3	<0.6
MW-14	04/15/91	52.07	---	---	ND	ND	ND	ND	ND
MW-14	05/19/93	52.07	---	---	ND	ND	ND	ND	ND
MW-14	11/17/93	52.07	---	---	ND	ND	ND	ND	ND
MW-14	05/18/94	52.07	3.84	48.23	ND	ND	ND	ND	ND
MW-14	09/20/95	52.07	8.02	44.05	<50	<0.3	<0.3	<0.3	<0.3
MW-14	03/19/96	52.07	3.64	48.43	---	---	---	---	---
MW-14	09/26/96	52.07	7.86	44.21	---	---	---	---	---
MW-14	03/04/97	52.07	3.27	48.80	<50	<0.5	<0.5	<0.5	<0.5
MW-14	09/24/97	52.07	8.25	43.82	100	1.5	2.7	3.0	14
MW-14	04/07/98	52.07	3.26	48.81	<50	<0.5	<0.5	<0.5	<0.5
MW-14	10/07/98	52.07	8.83	43.24	<50	<0.5	<0.5	<0.5	<0.5
MW-14	03/16/99	52.07	2.50	49.57	<50	<0.5	<0.5	<0.5	<0.5
MW-14	08/31/99	52.07	8.51	43.56	<50	<0.5	<0.5	<0.5	<0.5
MW-14	03/28/00	52.07	3.31	48.76	100[1]	<0.5	1.6	<0.5	<0.5
MW-14	10/11/00	52.07	7.57	44.50	<50	<0.5	<0.5	<0.5	<0.5
MW-14	12/07/00	52.07	4.02	48.05	150	<0.5	3.9	1.7	12
MW-14	02/22/01	52.07	2.92	49.15	<50	<0.5	<0.5	<0.5	<0.5
MW-14	05/08/01	52.07	4.73	47.34	<50	<0.5	<0.5	<0.5	<0.5
MW-14	09/26/01	52.07	7.27	44.80	<50	<0.5	<0.5	<0.5	<0.5
MW-14	12/12/01	52.07	3.37	48.70	<50	<0.5	<0.5	<0.5	<0.5
MW-14	03/12/02	52.07	3.48	48.59	<50	<0.5	<0.5	<0.5	<0.5
MW-14	05/21/02	52.07	5.01	47.06	<50	<0.5	<0.5	<0.5	<0.5
MW-14	08/28/02	52.07	8.60	43.47	<50	<0.5	<0.5	<0.5	<0.5
MW-14	11/20/02	52.07	7.64	44.43	<50	<0.5	<0.5	<0.5	<0.5
MW-14	02/18/03	52.07	3.71	48.36	---	---	---	---	---
MW-14	05/13/03	52.07	3.04	49.03	<50	<0.5	<0.5	<0.5	<0.5
MW-14	08/19/03	52.07	5.81	46.26	---	---	---	---	---
MW-14	11/19/03	52.07	5.54	46.53	<50	<0.5	<0.5	<0.5	<0.5
MW-14	03/03/04	52.07	2.98	49.09	---	---	---	---	---
MW-14	04/28/04	52.07	4.58	47.49	<50	<0.5	<0.5	<0.5	<0.5

TABLE 3
SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORTUNA MAINTENANCE STATION
FORTUNA, CALIFORNIA

SAMPLE ID	DATE	TOC ELEVATION (feet)	GROUNDWATER DEPTH (feet)	GROUNDWATER ELEVATION (feet)	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)
MW-14	09/16/04	52.07	7.63	44.44	<50	<0.5	<0.5	<0.5	<0.5
MW-14	02/10/05	52.07	3.86	48.21	<50	0.52	<0.5	<0.5	<0.5
MW-14	05/12/05	52.07	3.38	48.69	<50	<0.5	<0.5	<0.5	<0.5
MW-14	03/08/06	52.07	1.85	50.22	<50	<0.5	<0.5	<0.5	<1.0
MW-14	05/31/06	52.07	5.00	47.07	<50	<0.5	<0.5	<0.5	<1.0
MW-14[2]	06/15/06	56.40	---	---	---	---	---	---	---
MW-15	10/11/00	54.47	6.71	47.76	2,800	180	140	59	319
MW-15	12/07/00	54.47	6.23	48.24	2,800	590	15	92	25
MW-15	02/23/01	54.47	4.29	50.18	<50	<0.5	<0.5	<0.5	<0.5
MW-15	05/08/01	54.47	4.07	50.40	260	18	<0.5	2.4	1.0
MW-15	09/26/01	54.47	6.80	47.67	86	2.1	1.0	0.67	<0.5
MW-15	12/12/01	54.47	5.36	49.11	<50	<0.5	<0.5	<0.5	<0.5
MW-15	03/12/02	54.47	3.26	51.21	<50	<0.5	<0.5	<0.5	<0.5
MW-15	05/21/02	54.47	3.71	50.76	120	<0.5	<0.5	0.67	0.66
MW-15	08/28/02	54.47	6.25	48.22	71	1.3	2.1	<0.5	0.58
MW-15	11/20/02	54.47	7.48	46.99	<50	<0.5	<0.5	<0.5	<0.5
MW-15	02/18/03	54.47	3.22	51.25	<50	<0.5	<0.5	<0.5	<0.5
MW-15	05/13/03	54.47	1.89	52.58	110	17	21	1.1	9.2
MW-15	08/19/03	54.47	4.69	49.78	<50	<0.5	<0.5	<0.5	<0.5
MW-15	11/19/03	54.47	5.81	48.66	<50	0.8	<0.5	<0.5	<0.5
MW-15	03/03/04	54.47	1.96	52.51	390	110	52	1.4	21
MW-15	04/28/04	54.47	2.88	51.59	<50	<0.5	<0.5	<0.5	<0.5
MW-15	09/16/04	54.47	6.21	48.26	120	1.5	<0.5	<0.5	<0.5
MW-15	02/10/05	54.47	3.28	51.19	<50	1.2	<0.5	<0.5	<0.5
MW-15	05/12/05	54.47	2.37	52.10	<50	<0.5	<0.5	<0.5	<0.5
MW-15	03/08/06	54.47	1.72	52.75	78	<0.5	<0.5	<0.5	<1.0
MW-15	05/31/06	54.47	2.77	51.70	<50	<0.5	<0.5	<0.5	<1.0
MW-15[2]	06/15/06	57.71	---	---	---	---	---	---	---
MW-16	10/11/00	53.75	7.88	45.87	6,000	520	800	76	620
MW-16	12/07/00	53.75	6.53	47.22	76,000	8,100	15,000	920	6,400
MW-16	02/23/01	53.75	5.00	48.75	24,000	4,100	4,300	310	1,600
MW-16	05/08/01	53.75	4.84	48.91	3,000	790	350	110	440
MW-16	09/26/01	53.75	7.91	45.84	20,000	5,500	2,800	130	2,100
MW-16	12/12/01	53.75	5.32	48.43	8,900	1,100	950	130	690
MW-16	03/12/02	53.75	3.62	50.13	9,400	2,900	1,600	26	1,100
MW-16	05/21/02	53.75	5.02	48.73	21,000	3,200	2,500	330	1,800

TABLE 3
SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORTUNA MAINTENANCE STATION
FORTUNA, CALIFORNIA

SAMPLE ID	DATE	TOC ELEVATION (feet)	GROUNDWATER DEPTH (feet)	GROUNDWATER ELEVATION (feet)	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)
MW-16	08/28/02	53.75	7.38	46.37	6,500	960	1,200	61	670
MW-16	11/20/02	53.75	7.91	45.84	6,300	2,100	700	<10	350
MW-16	02/18/03	53.75	4.81	48.94	8,200	2,100	2,200	130	1,500
MW-16	05/13/03	53.75	2.65	51.10	24,000	4,000	4,500	200	3,100
MW-16	08/19/03	53.75	5.64	48.11	58,000	5,800	9,500	510	7,100
MW-16	11/19/03	53.75	6.56	47.19	89,000	7,720	13,800	810	11,400
MW-16	03/03/04	53.75	4.02	49.73	<500	5.3	6.6	<5.0	8.1
MW-16	04/28/04	53.75	3.51	50.24	40,000	5,200	10,000	200	8,200
MW-16	09/16/04	53.75	---	---	Sample not collected				
MW-16	02/10/05	53.75	3.74	50.01	42,000	5,000	5,100	370	5,500
MW-16	05/12/05	53.75	3.16	50.59	31,000	3,800	2,500	280	3,400
MW-16	03/08/06	53.75	2.25	51.50	42,000	5,000	6,700	760	6,000
MW-16	05/31/06	53.75	3.43	50.32	53,000	7,900	9,700	750	6,700
MW-16	06/15/06	Well replaced with nested well pair MW-16S/MW-16D							
DW-1	06/04/90	54.14	---	---	ND	0.4	ND	ND	ND
DW-1	11/20/90	54.14	14.40	39.74	<1	<0.3	<0.3	<0.3	<0.6
DW-1	04/15/91	54.14	---	---	ND	ND	ND	ND	ND
DW-1	05/19/93	54.14	---	---	ND	ND	ND	ND	ND
DW-1	11/17/93	54.14	---	---	ND	ND	ND	ND	ND
DW-1	05/18/94	54.14	12.61	41.53	ND	ND	ND	ND	ND
DW-1	09/19/95	54.14	14.67	39.47	<50	0.59	0.61	<0.3	<0.3
DW-1	03/19/96	54.14	10.63	43.51	<50	<0.3	<0.3	<0.3	<0.3
DW-1	09/26/96	54.14	15.01	39.13	<50	<0.5	<0.5	<0.5	<0.5
DW-1	03/03/97	54.14	10.48	43.66	<50	<0.5	<0.5	<0.5	<0.5
DW-1	09/24/97	54.14	14.23	39.91	<50	0.67	0.59	<0.5	2.1
DW-1	04/08/98	54.14	9.15	44.99	<50	<0.5	<0.5	<0.5	<0.5
DW-1	10/07/98	54.14	13.60	40.54	<50	<0.5	<0.5	<0.5	<0.5
DW-1	03/17/99	54.14	9.07	45.07	<50	<0.5	<0.5	<0.5	<0.5
DW-1	08/31/99	54.14	14.68	39.46	<50	<0.5	<0.5	<0.5	<0.5
DW-1	03/29/00	54.14	3.22	50.92	100 [1]	0.6	0.8	<0.5	<0.5
DW-1	10/11/00	54.14	14.15	39.99	<50	<0.5	<0.5	<0.5	0.58
DW-1	12/07/00	54.14	5.93	48.21	<50	<0.5	<0.5	<0.5	<0.5
DW-1	02/22/01	54.14	11.52	42.62	<50	<0.5	<0.5	<0.5	<0.5
DW-1	05/08/01	54.14	11.34	42.80	<50	<0.5	<0.5	<0.5	<0.5
DW-1	09/26/01	54.14	14.20	39.94	<50	<0.5	<0.5	<0.5	<0.5
DW-1	12/12/01	54.14	12.89	41.25	<50	<0.5	<0.5	<0.5	<0.5
DW-1	03/12/02	54.14	10.43	43.71	<50	<0.5	<0.5	<0.5	<0.5

TABLE 3
SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORTUNA MAINTENANCE STATION
FORTUNA, CALIFORNIA

SAMPLE ID	DATE	TOC ELEVATION (feet)	GROUNDWATER DEPTH (feet)	GROUNDWATER ELEVATION (feet)	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)
DW-1	05/21/02	54.14	11.25	42.89	<50	<0.5	<0.5	<0.5	<0.5
DW-1	08/28/02	54.14	14.04	40.10	<50	<0.5	<0.5	<0.5	<0.5
DW-1	11/20/02	54.14	14.10	40.04	<50	<0.5	<0.5	<0.5	<0.5
DW-1	02/18/03	54.14	10.89	43.25	<50	<0.5	<0.5	<0.5	<0.5
DW-1	05/13/03	54.14	9.09	45.05	<50	<0.5	<0.5	<0.5	<0.5
DW-1	08/19/03	54.14	14.36	39.78	<50	<0.5	<0.5	<0.5	<0.5
DW-1	11/19/03	54.14	13.64	40.50	<50	0.5	0.8	<0.5	2
DW-1	03/03/04	54.14	9.51	44.63	<50	<0.5	<0.5	<0.5	<0.5
DW-1	04/28/04	54.14	10.61	43.53	<50	<0.5	<0.5	0.70	<0.5
DW-1	09/16/04	54.14	14.15	39.99	94	<0.5	<0.5	0.73	2.53
DW-1	02/10/05	54.14	10.87	43.27	<50	<0.5	<0.5	<0.5	<0.5
DW-1	05/12/05	54.14	10.06	44.08	<50	<0.5	<0.5	<0.5	<0.5
DW-1	03/08/06	54.14	8.65	45.49	<50	<0.5	<0.5	<0.5	<1.0
DW-1	05/31/06	54.14	10.39	43.75	<50	<0.5	<0.5	<0.5	<1.0
DW-1[2]	06/15/06	57.40	---	---	---	---	---	---	---
PW-1	06/04/90	54.38	---	---	1,400	1,100	0.7	2.0	0.6
PW-1	09/19/95	54.38	9.37	45.01	300	540	8.0	<1.5	2.2
PW-1	03/19/96	54.38	2.47	51.91	---	---	---	---	---
PW-1	09/26/96	54.38	7.79	46.59	---	---	---	---	---
PW-1	03/03/97	54.38	2.98	51.40	<50	<0.5	<0.5	<0.5	<0.5
PW-1	09/24/97	54.38	7.50	46.88	---	---	---	---	---
PW-1	04/08/98	54.38	1.60	52.78	<50	<0.5	<0.5	<0.5	<0.5
PW-1	03/17/99	54.38	2.11	52.27	<50	1.6	<0.5	0.7	<0.5
PW-1	08/31/99	54.38	7.75	46.63	<50	1.0	<0.5	<0.5	<0.5
PW-1	03/29/00	54.38	2.91	51.47	100[1]	0.5	1.0	<0.5	<0.5
PW-1	10/10/00	54.38	8.00	46.38	270	12	14	2.2	11.4
PW-1	12/07/00	54.38	5.62	48.76	180	1.9	2.3	1.8	3.6
PW-1	02/23/01	54.38	6.75	47.63	<50	<0.5	<0.5	<0.5	<0.5
PW-1	05/08/01	54.38	6.17	48.21	<50	<0.5	<0.5	<0.5	<0.5
PW-1	09/26/01	54.38	8.40	45.98	430	<0.5	<0.5	0.98	0.68
PW-1	12/12/01	54.38	5.04	49.34	<50	1.4	<0.5	<0.5	<0.5
PW-1	03/12/02	54.38	3.21	51.17	<50	<0.5	<0.5	<0.5	<0.5
PW-1	05/21/02	54.38	4.61	49.77	<50	<0.5	<0.5	<0.5	<0.5
PW-1	08/28/02	54.38	7.82	46.56	260	4.0	<0.5	<0.5	<0.5
PW-1	11/20/02	54.38	8.62	45.76	280	1.7	0.94	<0.5	<0.5
PW-1	02/18/03	54.38	3.70	50.68	<50	<0.5	<0.5	<0.5	<0.5
PW-1	05/13/03	54.38	2.14	52.24	<50	<0.5	<0.5	<0.5	<0.5

TABLE 3
SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL DATA
FORTUNA MAINTENANCE STATION
FORTUNA, CALIFORNIA

SAMPLE ID	DATE	TOC ELEVATION (feet)	GROUNDWATER DEPTH (feet)	GROUNDWATER ELEVATION (feet)	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)
PW-1	08/19/03	54.38	5.96	48.42	190	<0.5	<0.5	0.7	<0.5
PW-1	11/19/03	54.38	6.44	47.94	<50	0.8	<0.5	<0.5	<0.5
PW-1	03/03/04	54.38	1.96	52.42	<50	<0.5	<0.5	<0.5	<0.5
PW-1	04/28/04	54.38	4.72	49.66	<50	0.60	0.80	<0.5	0.70
PW-1	09/16/04	54.38	6.32	48.06	220	<0.5	<0.5	<0.5	<0.5
PW-1	02/10/05	54.38	3.59	50.79	<50	<0.5	<0.5	<0.5	<0.5
PW-1	05/12/05	54.38	2.56	51.82	<50	<0.5	<0.5	<0.5	<0.5
PW-1	03/08/06	54.38	1.68	52.70	73	<0.5	<0.5	<0.5	<1.0
PW-1	05/31/06	54.38	3.76	50.62	50	<0.5	<0.5	<0.5	<1.0
PW-1[2]	06/15/06	57.82	---	---	---	---	---	---	---
MW-16S[2]	6/15/2006[3]	57.20	Dry	---	---	---	---	---	---
MW-16D[2]	6/15/2006[3]	56.94	4.14	52.80	5,000	650	160	17	260
MW-17S[2]	06/16/06	56.71	6.45	50.26	<50	<0.5	<0.5	<0.5	<0.5
MW-17D[2]	6/15/2006[3]	56.53	4.00	52.53	610	<0.5	<0.5	<0.5	<0.5
MW-18S[2]	6/15/2006[3]	56.65	4.69	51.96	120	<0.5	<0.5	<0.5	<0.5
MW-18D[2]	6/15/2006[3]	56.42	3.88	52.54	<50	<0.5	<0.5	<0.5	<0.5

Note:
µg/l = Micrograms per liter
--- = Not tested or not available
<, ND = Less than laboratory test method detection limit
[1] = Laboratory report notation "Samples contains hydrocarbons that do not match the gasoline pattern. However, quantification is based on a gasoline standard."
[2] = Wells re-surveyed by Morrow Surveyors on June 19, 2006.
[3] = Depth to groundwater measurements collected on June 16, 2006.

APPENDIX A

HUMBOLDT COUNTY DIVISION of ENVIRONMENTAL HEALTH - HAZARDOUS MATERIALS UNIT
WELL and BORING PERMIT APPLICATION

Facility ID # 12035 Permit # 293-F

Facility Name: Fortuna Maintenance Station

Site Address: 1924 Smith Lane

Site Owner: Caltrans Attn: Doug Coleman Telephone: 530.741.4539

Address: Caltrans Dist. 3 PO Box 911 AP#:
Marysville, CA 95901

RP Name: As above Telephone:

Address:

Consultant: Geocon Consultants Inc. Attn. West Bourgault Telephone: 916.852.9118

Address: 3160 Gold Valley Dr. #800 Rancho Cordova, CA 95742 Reg.#/Type: PG 5753

Driller: J & W Drilling Telephone: 916.777.4100 (Jim Brake)

Address: PO Box 416 Isleton, CA 95641 C-57 Lic.#: 720904

# On-site		# Off-site	
Wells	Borings 11	Wells	Borings

Activity: ☐ Construct ☐ Destroy ☐ Repair/Modify Electrode Type:

Well Type: ☐ Monitoring Well ☐ Injection Well ☐ Vapor Extraction ☐ Geologic Boring
☐ Extraction Well ☐ Piezometer ☐ Vapor Point ☐ Soil Gas Survey
☐ Vadose Well ☐ Cathodic Protection ☑ Direct Push Boring ☐ Temporary Well Point

Investigation Type: ☐ Site Assessment ☐ Disposal Practice ☑ UST ☐ Other*
☐ Surface Contamination ☐ Surface Impoundment ☐ AST
*Specify:

Investigation Phase: ☐ Initial ☑ Subsequent ☐ Remediation ☐ Closure

Suspected Contaminants: TPHg, BTEX

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MAR 23 2006
BY: GEOCON

Disposal/Containment for Soil Cuttings: 55-gal. drums

Disposal/Containment for Rinsate: 55-gal. drums

Disposal/Containment for Development Water:

Permits will not be processed with out the following information:

- ☐ Scaled Construction Detail
- ☑ Detailed Site Plan
- ☑ Lead Agency Approval Letter
- ☐ Off Site Well Requirements: NA
  - ☐ Legal Right of Entry
  - ☐ Off Site Address/Location
  - ☐ Encroachment Permit
  - ☐ Coastal Zone Permit
- ☑ Appropriate Fees
- ☑ Copy of Workplan (if not on file at HCDEH)

Proposed Work Date: 3/21-22/06

HUMBOLDT COUNTY DIVISION of ENVIRONMENTAL HEALTH - HAZARDOUS MATERIALS UNIT
WELL and BORING PERMIT APPLICATION

Facility ID # 12035 **Permit #** 293-F

I hereby agree to comply with all laws, ordinances and regulations of the county of Humboldt and State of California pertaining to water well construction. I will contact the Humboldt County Hazardous Materials Unit at (707) 445-6215 five (5) working days prior to commencing this work. I will furnish to the County of Humboldt, Division of Environmental Health, and the owner a legible copy of the State Water Well Completion Report (form DWR 188) within fifteen (15) days after completion of work to obtain final approval of the well(s). I acknowledge that the application will become a permit ONLY after site approval by the Local Implementing Agency (HCDEH, NCRWQCB, DTSC, EPA). I understand this permit is not transferable and expires one hundred twenty (120) days from the date of issuance.

Certificates of Insurance:

☒ A currently effective General Liability Certificate of Insurance is on file with this office, endorsed to include the Humboldt County Division of Environmental Health as additional named insured.

☐ A currently effective Worker's Compensation Certificate of Insurance is on file with this office, endorsed to include the Humboldt County Division of Environmental Health as additional named insured.

[signature] 3/6/06

Signature of Well Driller - no proxies - original signature only in blue ink Date

- **Well identification number and type must be affixed to exterior surface of security structure.**
- **The applicant is responsible for notifying Underground Services Alert at least 48 hours prior to the scheduled work date.**
- **A State of California Department of Water resources Well Completion Report (Form DWR 1-88) must be filed within 15 days of completion of work for all well completions and destructions.**
- **A licensed California C-57 Well Driller is required for all wells and direct push work.**

FOR OFFICE USE ONLY

Permit Approval: [signature] **Date:** 3/17/06

Fee: $216.00 **Date:** 3/17/2006 **Receipt:** 229116

Initial Inspection: _____ **Date:** _____

Final Inspection: _____ **Date:** _____

HUMBOLDT COUNTY DIVISION of ENVIRONMENTAL HEALTH - HAZARDOUS MATERIALS UNIT
WELL and BORING PERMIT APPLICATION

RECEIVED
MAY 31 2006
HUMBOLDT CO. DIVISION OF ENVIRONMENTAL HEALTH

Facility ID # 12035 Permit # 293-G

Facility Name: Fortuna Maintenance Station

Site Address: 1924 Smith Lane

Site Owner: Caltrans Attn: Doug Coleman Telephone: 530.741.4539

Address: Caltrans Dist. 3 PO Box 911 Marysville, CA 95901 AP#:

RP Name: As above Telephone:

Address:

Consultant: Geocon Consultants Inc. Attn: West Bourgault Telephone: 916.852.9118

Address: 3160 Gold Valley Dr. #800 Rancho Cordova, CA 95742 Reg.#/Type: PG 5753

Driller: Mitchell Drilling Eng. Telephone: 707.444.9040 Jim Brake

Address: 7900 Myrtle Avenue, Eureka, CA 95503 C-57 Lic.#: 672617

# On-site		# Off-site	
Wells 3	Borings	Wells	Borings

Activity: ☑ Construct (3) ☑ Destroy (1) Nested Pairs ☐ Repair/Modify Electrode Type:

Well Type: ☑ Monitoring Well ☐ Injection Well ☐ Vapor Extraction ☐ Geologic Boring
☐ Extraction Well ☐ Piezometer ☐ Vapor Point ☐ Soil Gas Survey
☐ Vadose Well ☐ Cathodic Protection ☐ Direct Push Boring ☐ Temporary Well Point

RECEIVED
JUN 07 2006
BY: GEOCON

Investigation Type: ☐ Site Assessment ☐ Disposal Practice ☑ UST ☐ Other*
☐ Surface Contamination ☐ Surface Impoundment ☐ AST
*Specify:

Investigation Phase: ☐ Initial ☑ Subsequent ☐ Remediation ☐ Closure

Suspected Contaminants: TPHg, BTEX

Disposal/Containment for Soil Cuttings: 55-gal drums

Disposal/Containment for Rinsate: 55-gal drums

Disposal/Containment for Development Water: 55-gal. drums

Permits will not be processed with out the following information:

- ☐ Scaled Construction Detail
- ☑ Detailed Site Plan
- ☐ Lead Agency Approval Letter
- ☐ Off Site Well Requirements:
  - ☐ Legal Right of Entry
  - ☐ Off Site Address/Location
  - ☐ Encroachment Permit
  - ☐ Coastal Zone Permit
- ☑ Appropriate Fees
- ☑ Copy of Workplan (if not on file at HCDEH)

Proposed Work Date: 6/7-8/06

rev. 6/98

HUMBOLDT COUNTY DIVISION of ENVIRONMENTAL HEALTH - HAZARDOUS MATERIALS UNIT
WELL and BORING PERMIT APPLICATION

Facility ID # 12035 **Permit #** 293 – G

I hereby agree to comply with all laws, ordinances and regulations of the county of Humboldt and State of California pertaining to water well construction. I will contact the Humboldt County Hazardous Materials Unit at (707) 445-6215 five (5) working days prior to commencing this work. I will furnish to the County of Humboldt, Division of Environmental Health, and the owner a legible copy of the State Water Well Completion Report (form DWR 188) within fifteen (15) days after completion of work to obtain final approval of the well(s). I acknowledge that the application will become a permit ONLY after site approval by the Local Implementing Agency (HCDEH, NCRWQCB, DTSC, EPA). I understand this permit is not transferable and expires one hundred twenty (120) days from the date of issuance.

Certificates of Insurance:

☒ A currently effective General Liability Certificate of Insurance is on file with this office, endorsed to include the Humboldt County Division of Environmental Health as additional named insured.

☒ A currently effective Worker's Compensation Certificate of Insurance is on file with this office, endorsed to include the Humboldt County Division of Environmental Health as additional named insured.

Signature of Well Driller - no proxies - original signature only in blue ink

Date 5/30/06

- **Well identification number and type must be affixed to exterior surface of security structure.**
- **The applicant is responsible for notifying Underground Services Alert at least 48 hours prior to the scheduled work date.**
- **A State of California Department of Water resources Well Completion Report (Form DWR 1-88) must be filed within 15 days of completion of work for all well completions and destructions.**
- **A licensed California C-57 Well Driller is required for all wells and direct push work.**

FOR OFFICE USE ONLY

Permit Approval: Rex Stone **Date:** 6/2/06

Fee: $288.00 **Date:** 6/2/2006 **Receipt:** 231451

Initial Inspection: _____ **Date:** _____

Final Inspection: _____ **Date:** _____

APPENDIX B

PROJECT NO. S8875-06-50

BORING NO. B36

DATE DRILLED 3/21/06 WATER LEVEL (ATD) Not Encountered

EQUIPMENT GEOPROBE DRILLER V&W DRILLING

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	SOIL (USCS)	HEADSPACE (PPM)
				3 INCHES ASPHALT	GP	
1				**FILL** Dense, dry, gray to brown, Sandy GRAVEL		
2				**ALLUVIUM** Soft, slightly moist, black, SILT	ML	
3						
4		B36-4 1138				
5				Soft, slightly moist, gray, SILT	ML	
6		B36-6 1148				
7				Soft, slightly moist, brown, SILT, some clay	ML	
8		B36-8 1150		BORING TERMINATED AT 8 FEET GROUNDWATER MEASURED AT 1.95 FEET ON 3/22/06		

Figure 1, Log of Boring B36, page 1 of 1

ENV_NO_WELL FORTUN~1.GPJ 07/14/06

BORING ELEVATION:

ENGINEER/GEOLOGIST: **WEST BOURGAULT**

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES

PROJECT NO. S8875-06-50

BORING NO. B37

DATE DRILLED 3/21/06 WATER LEVEL (ATD) Not Encountered

EQUIPMENT GEOPROBE DRILLER V&W DRILLING

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	SOIL (USCS)	HEADSPACE (PPM)
1				**2 INCHES ASPHALT**	GP	
				FILL Dense, dry, gray to brown, Sandy GRAVEL		
2						
3				**ALLUVIUM** Soft, slightly moist, black, SILT	ML	
4		B37-4 1210		Soft, moist, gray, SILT	ML	
5						
6		B37-6 1218				
7				Soft, slightly moist, brown, SILT with clay - gray mottling	ML	
8		B37-8 1220		BORING TERMINATED AT 8 FEET GROUNDWATER MEASURED AT 2.03 FEET ON 3/22/06		

Figure 2, Log of Boring B37, page 1 of 1

ENV_NO_WELL FORTUN~1.GPJ 07/14/06

BORING ELEVATION:

ENGINEER/GEOLOGIST: **WEST BOURGAULT**

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES

PROJECT NO. S8875-06-50

BORING NO. B38

DATE DRILLED 3/21/06 WATER LEVEL (ATD) Not Encountered

EQUIPMENT GEOPROBE DRILLER V&W DRILLING

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	SOIL (USCS)	HEADSPACE (PPM)
				2 INCHES ASPHALT	GP	
1				**FILL** Dense, slightly moist, gray to brown, Sandy GRAVEL		
2						
3						
4		B38-4 1238		**ALLUVIUM** Soft, moist, black, SILT	ML	
5				Soft, moist, gray, SILT		
6		B38-6 1243				
7		B38-8 1245		Soft, moist, brown, SILT with clay, - gray mottling	ML	
8				BORING TERMINATED AT 8 FEET GROUNDWATER MEASURED AT 1.65 FEET ON 3/22/06		

Figure 3, Log of Boring B38, page 1 of 1

ENV_NO_WELL FORTUN~1.GPJ 07/14/06

BORING ELEVATION:

ENGINEER/GEOLOGIST: **WEST BOURGAULT**

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES

PROJECT NO. **S8875-06-50**

BORING NO. B39

DATE DRILLED 3/21/06 WATER LEVEL (ATD) Not Encountered

EQUIPMENT GEOPROBE DRILLER V&W DRILLING

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	SOIL (USCS)	HEADSPACE (PPM)
1				**1 INCH ASPHALT**	GP	
				FILL Dense, dry, gray to brown , Sandy GRAVEL		
2						
3		B39-3 1303				
4				**ALLUVIUM** Soft, moist, black, SILT	ML	
5				Soft, moist, gray, SILT	ML	
6		B39-6 1313				
7				Soft, slightly moist, brown, SILT with clay, iron oxide mottling	ML	
8		B39-8 1315		BORING TERMINATED AT 8 FEET GROUNDWATER MEASURED AT 1.70 FEET ON 3/22/06		

Figure 4, Log of Boring B39, page 1 of 1

ENV_NO_WELL FORTUN~1.GPJ 07/14/06

BORING ELEVATION:

ENGINEER/GEOLOGIST: **WEST BOURGAULT**

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES

PROJECT NO. **S8875-06-50**

BORING NO. B40

DATE DRILLED 3/21/06 WATER LEVEL (ATD) Not Encountered

EQUIPMENT GEOPROBE DRILLER V&W DRILLING

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	SOIL (USCS)	HEADSPACE (PPM)
1				**3 INCHES ASPHALT**	GP	
				FILL Dense, dry, gray to brown, Sandy GRAVEL		
2		B40-2 1332				
3				**ALLUVIUM** Soft, moist, black, SILT	ML	
4						
5				- poor recovery , only 1" of gray silt	ML	
6				Soft, slightly moist, brown, SILT, some clay	ML	
7						
8		B40-8 1340		BORING TERMINATED AT 8 FEET GROUNDWATER MEASURED AT 2.00 FEET ON 3/22/06		

Figure 5, Log of Boring B40, page 1 of 1

ENV_NO_WELL FORTUN~1.GPJ 07/14/06

BORING ELEVATION:

ENGINEER/GEOLOGIST: **WEST BOURGAULT**

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES

PROJECT NO. **S8875-06-50**

BORING NO. B41

DATE DRILLED 3/21/06 WATER LEVEL (ATD) Not Encountered

EQUIPMENT GEOPROBE DRILLER V&W DRILLING

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	SOIL (USCS)	HEADSPACE (PPM)
1				**3 INCHES ASPHALT**	GP	
				FILL Dense, dry, gray to brown, Sandy GRAVEL		
2						
3				**ALLUVIUM** Soft, slightly moist, black, SILT, slight hydrocarbon odor	ML	
4		B41-4 1405				
5				Soft, slightly moist, gray, SILT, hydrocarbon odor	ML	
6		B41-6 1413		Soft, slightly moist, brown, SILT, gray mottling	ML	
7						
8		B41-8 1415		BORING TERMINATED AT 8 FEET GROUNDWATER MEASURED AT 1.70 FEET ON 3/22/06		

Figure 6, Log of Boring B41, page 1 of 1

ENV_NO_WELL FORTUN~1.GPJ 07/14/06

BORING ELEVATION:

ENGINEER/GEOLOGIST: **WEST BOURGAULT**

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES

PROJECT NO. S8875-06-50

BORING NO. B42

DATE DRILLED 3/21/06 WATER LEVEL (ATD) Not Encountered

EQUIPMENT GEOPROBE DRILLER V&W DRILLING

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	SOIL (USCS)	HEADSPACE (PPM)
1				**3 INCHES ASPHALT**	GP	
2				**FILL** Dense, dry, gray to brown, Sandy GRAVEL, slight hydrocarbon odor		
3				**ALLUVIUM** Soft, slightly moist, black, SILT, hydrocarbon odor	ML	
4		B42-4 1435				
5				Soft, moist, gray, SILT, hydrocarbon odor	ML	
6		B42-6 1440		Soft, slightly moist, brown, SILT, gray mottling	ML	
7						
8		B42-8 1442		BORING TERMINATED AT 8 FEET GROUNDWATER MEASURED AT 1.83 FEET ON 3/22/06		

Figure 7, Log of Boring B42, page 1 of 1

ENV_NO_WELL FORTUN~1.GPJ 07/14/06

BORING ELEVATION:

ENGINEER/GEOLOGIST: **WEST BOURGAULT**

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES

PROJECT NO. S8875-06-50

BORING NO. B43

DATE DRILLED 3/21/06 WATER LEVEL (ATD) Not Encountered

EQUIPMENT GEOPROBE DRILLER V&W DRILLING

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	SOIL (USCS)	HEADSPACE (PPM)
1				**3 INCHES ASPHALT**	GP	
				FILL Dense, dry, gray to brown, Sandy GRAVEL		
2		B43-2 1503		**ALLUVIUM** Soft, slightly moist, black, SILT, hydrocarbon odor	ML	
3						
4		B43-4 1505		Soft, moist, gray, SILT, hydrocarbon odor	ML	
5						
6		B43-6 1547		Soft, slightly moist, brown, SILT, gray mottling	ML	
7						
8		B43-8 1520		BORING TERMINATED AT 8 FEET GROUNDWATER MEASURED AT 3.20 FEET ON 3/22/06		

Figure 8, Log of Boring B43, page 1 of 1

ENV_NO_WELL FORTUN~1.GPJ 07/14/06

BORING ELEVATION:

ENGINEER/GEOLOGIST: **WEST BOURGAULT**

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES

PROJECT NO. **S8875-06-50**

BORING NO. B44

DATE DRILLED 3/21/06 WATER LEVEL (ATD) Not Encountered

EQUIPMENT GEOPROBE DRILLER V&W DRILLING

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	SOIL (USCS)	HEADSPACE (PPM)
1				**2 INCHES ASPHALT**	GP	
				FILL Dense, dry, gray to brown, Sandy GRAVEL		
2						
3				**ALLUVIUM** Soft, slightly moist, black, SILT	ML	
4		B44-4 1555		Soft, moist, gray, SILT	ML	
5						
6		B44-6 1600		Soft, slightly moist, brown, SILT	ML	
7						
8		B44-8 1605		BORING TERMINATED AT 8 FEET GROUNDWATER MEASURED AT 1.86 FEET ON 3/22/06		

Figure 9, Log of Boring B44, page 1 of 1

ENV_NO_WELL FORTUN~1.GPJ 07/14/06

BORING ELEVATION:

ENGINEER/GEOLOGIST: **WEST BOURGAULT**

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES

PROJECT NO. **S8875-06-50**

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	**BORING/WELL NO.** MW-16S/D DATE DRILLED 6/12/2006 WATER LEVEL (ATD) 18.0' EQUIPMENT CME-75 DRILLER MITCHELL	WELL CONSTRUCTION	HEADSPACE (PPM)
				SOIL DESCRIPTION		
				- overdrill existing well with 10-inch-diameter concrete augers		
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18				▼		
19						
20						
21				BORING TERMINATED AT 21 FEET		
22						
23						
24						

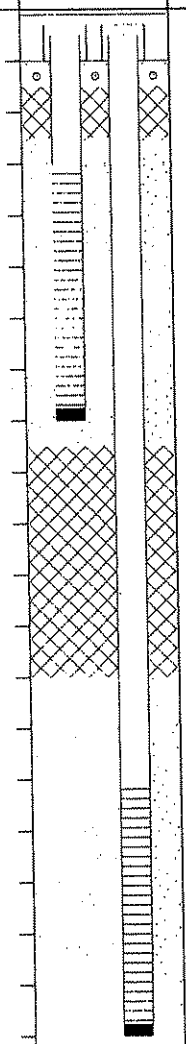

Figure 10, Log of Boring MW-16S/D, page 1 of 1

ENV_WELL FORTUN~1.GPJ 07/14/06

CASING ELEVATION: **57.20 (S), 56.94 (D)**	QUANTITY OF FILTER MATERIAL: **3.5 100lb bags**
DIAMETER & TYPE OF CASING: **2 Sch 40 PVC**	WELL SEAL & INTERVAL: **1.5-2.5' (S), 8.5-13' (D)**
CASING INTERVAL: **0-3' (S), 0-15' (D)**	WELL SEAL QUANTITY: **3 50lb bags**
WELL SCREEN: **0.010 Slot**	ANNULUS SEAL/INTERVAL: **Grout, 1.0-1.5'**
SCREEN INTERVAL: **3-8' (S), 15-20' (D)**	ADDITIVES: **None**
WELL COVER: **12 diameter traffic rated**	WELL DEPTH: **8' (S), 20' (D)**
FILTERPACK/INTERVAL: **#3 Sand, 2.5-8.5' (S), 13-21' (D)**	ENGINEER/GEOLOGIST: **WEST BOURGAULT**

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. **S8875-06-50**

BORING/WELL NO. MW-17S/D

DATE DRILLED 6/12/2006 WATER LEVEL (ATD) 18.0'

EQUIPMENT CME-75 DRILLER MITCHELL

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	HEADSPACE (PPM)
1				**2 INCHES ASPHALT**	
2				**FILL** Dense, moist, gray to brown, Sandy GRAVEL (GP) with cobbles	
3				**ALLUVIUM** Soft, moist to very moist, black, SILT (ML)	
4					
5	12	MW-17-5 1310		Stiff, moist, gray to green, SILT (ML)	0
6					
7				Stiff, moist, brown, SILT (ML)	
8					
9					
10	33	MW-17-10 1320			
11					0
12					
13				Medium dense, moist to very moist, brown, Silty fine SAND (SM)	
14					
15	38	MW-17-15 1330			0
16					
17					
18				▼	
19					0
20	25	MW-17-20 1340		- wet	
21				BORING TERMINATED AT 21 FEET	
22					
23					
24					

WELL CONSTRUCTION

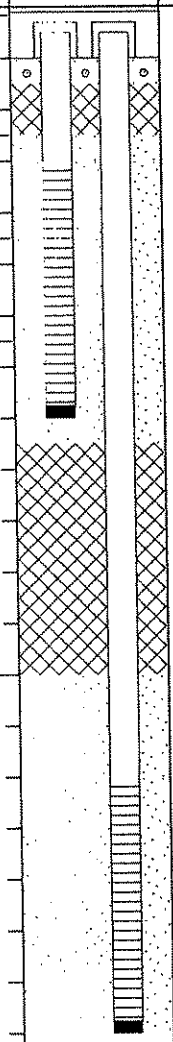

Figure 11, Log of Boring MW-17S/D, page 1 of 1

ENV_WELL FORTUN~1.GPJ 07/14/06

CASING ELEVATION: **56.71 (S), 56.53 (D)**	QUANTITY OF FILTER MATERIAL: **2 100lb bags**
DIAMETER & TYPE OF CASING: **1 Sch 40 PVC**	WELL SEAL & INTERVAL: **1.5-2.5' (S), 8.5-13' (D)**
CASING INTERVAL: **0-3' (S), 0-15' (D)**	WELL SEAL QUANTITY: **2 50lb bags**
WELL SCREEN: **0.010 Slot**	ANNULUS SEAL/INTERVAL: **Grout, 1.0-1.5'**
SCREEN INTERVAL: **3-8' (S), 15-20' (D)**	ADDITIVES: **None**
WELL COVER: **8 diameter traffic rated**	WELL DEPTH: **8' (S), 20' (D)**
FILTERPACK/INTERVAL: **#3 Sand, 2.5-8.5' (S), 13-21' (D)**	ENGINEER/GEOLOGIST: **WEST BOURGAULT**

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES

PROJECT NO. S8875-06-50

BORING/WELL NO. MW-18S/D

DATE DRILLED 6/12/2006 WATER LEVEL (ATD) 18.0'

EQUIPMENT CME-75 DRILLER MITCHELL

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	SOIL DESCRIPTION	HEADSPACE (PPM)
			4 INCHES ASPHALT	
1			**FILL** Dense, moist, gray to brown, Sandy GRAVEL (GP) with cobbles	
2				
3			**ALLUVIUM** Stiff, moist to very moist, black, SILT (ML)	
4				
5	28	MW-18-5 1054	Stiff, moist, gray, SILT (ML)	0
6			Stiff, moist, brown, SILT with clay (ML)	
7				
8				
9				
10	32	MW-18-10 1105	- trace fine sand	0
11				
12				
13				
14				
15	28	MW-18-15 1110	- wet	0
16				
17			Medium dense, wet, brown, Silty fine SAND (SM)	
18			▼	
19				
20	26	MW-18-20 1120		0
21			BORING TERMINATED AT 21 FEET	
22				
23				
24				

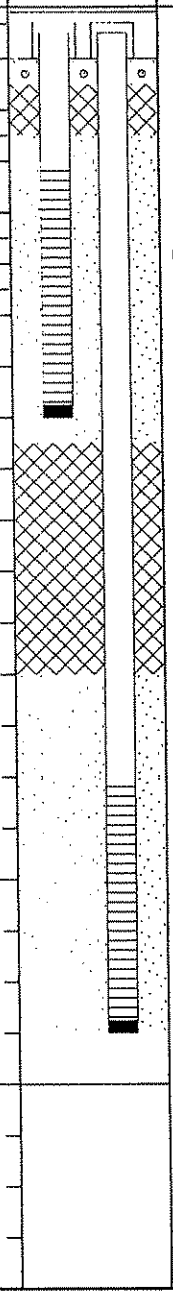

Figure 12, Log of Boring MW-18S/D, page 1 of 1

ENV_WELL FORTUN~1.GPJ 07/14/06

CASING ELEVATION: 56.65 (S), 56.42 (D)	QUANTITY OF FILTER MATERIAL: 2 100lb bags
DIAMETER & TYPE OF CASING: 1 Sch 40 PVC	WELL SEAL & INTERVAL: 1.5-2.5' (S), 8.5-13' (D)
CASING INTERVAL: 0-3' (S), 0-15' (D)	WELL SEAL QUANTITY: 2 50lb bags
WELL SCREEN: 0.010 Slot	ANNULUS SEAL/INTERVAL: Grout, 1.0-1.5'
SCREEN INTERVAL: 3-8' (S), 15-20' (D)	ADDITIVES: None
WELL COVER: 8 diameter traffic rated	WELL DEPTH: 8' (S), 20' (D)
FILTERPACK/INTERVAL: #3 Sand, 2.5-8.5' (S), 13-21' (D)	ENGINEER/GEOLOGIST: WEST BOURGAULT

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES

APPENDIX C

MONITORING WELL DEVELOPMENT DATA

Project Name: Fortuna Maint. Station	**Project Number:** S8875-06-50
Well No.: MW-16S	Date: 6/15/06
Well Diameter: 2 in.	Field Personnel: MO
Casing Length: 8 feet	Screened Casing Length:
Well Elevation: NA	

PURGE CHARACTERISTICS	
Water Depth Before Purging: 7.67 ft.	2 in. = .1632 Gal/ft. 4 in. = .6528 Gal/ft.
Calculated Water Column Volume: 0.05 Gal.	Volumes Purged:
Start Purging Time:	End Purging Time:
Total Time: min.	Flow Gauge: to
Total Volume Purged: Gal.	Avg. Flow Rate: gpm
Water Depth After Purging: feet	Time:
Dissolved Oxygen: mg/l	Free Product: (Y/N); Thickness: inches

SAMPLING CHARACTERISTICS					
Purging Method: Disposable Bailer			Sampling Method: Disposable Bailer		
Laboratory Analysis:					
TIME	TEMP. (°C)	CONDUCTIVITY (umhos/cm)	TURBIDITY (ntu)	pH	Gallons Purged

comments: Not enough water to draw into bailer – Well Dry.
Depth to water measured again 6/16 am – 7.82 feet bgs – Well Dry.

MONITORING WELL DEVELOPMENT DATA

Project Name: Fortuna Maint. Station	**Project Number:** S8875-06-50
Well No.: MW-16D	Date: 6/15/06
Well Diameter: 2 in.	Field Personnel: MO
Casing Length: 20 feet	Screened Casing Length:
Well Elevation: NA	

PURGE CHARACTERISTICS	
Water Depth Before Purging: 7.11 ft.	2 in. = .1632 Gal/ft. 4 in. = .6528 Gal/ft.
Calculated Water Column Volume: 2.10 Gal.	Volumes Purged: 7.6
Start Purging Time: 1547-1603	End Purging Time: 1711-1722
Total Time: 27 min.	Flow Gauge: to
Total Volume Purged: 16 Gal.	Avg. Flow Rate: gpm
Water Depth After Purging: feet	Time:
Dissolved Oxygen: mg/l	Free Product: (Y/N); Thickness: inches

SAMPLING CHARACTERISTICS

Purging Method: Reusable Bailer/Pump	Sampling Method: Disposable Bailer
Laboratory Analysis: TPHg, BTEX	

TIME	TEMP. (°C)	CONDUCTIVITY (umhos/cm)	TURBIDITY (ntu)	pH	Gallons Purged
1559	18.6	1616	749	6.13	4
1603	20.1	2368	533	6.29	8
1713	18.8	866	231	6.17	12
1722	18.7	862	234	6.20	16

comments: Purged one casing volume with reusable bailer, then switched to submersible pump. Well went dry after purging 8 gallons. Allowed well to recharge. Well went dry again after purging 16 gallons.

Sample collected at 1735.

MONITORING WELL DEVELOPMENT DATA

Project Name: Fortuna Maint. Station	**Project Number:** S8875-06-50
Well No.: MW-17S	Date: 6/15/06 & 6/16/06
Well Diameter: 1 in.	Field Personnel: MO
Casing Length: 8 feet	Screened Casing Length:
Well Elevation: NA	

PURGE CHARACTERISTICS	
Water Depth Before Purging: 6.26 ft.	1 in. = 0.041 Gal/ft. 2 in. = 0.1632 Gal/ft.
Calculated Water Column Volume: 0.07 Gal.	Volumes Purged: 14.3
Start Purging Time: 1432-1446 (6/15)	End Purging Time: 0804-0812 (6/16)
Total Time: 22 min.	Flow Gauge: to
Total Volume Purged: 1 Gal.	Avg. Flow Rate: gpm
Water Depth After Purging: feet	Time:
Dissolved Oxygen: mg/l	Free Product: (Y/N); Thickness: inches

SAMPLING CHARACTERISTICS

Purging Method: Reusable Bailer	Sampling Method: Disposable Bailer
Laboratory Analysis: TPHg, BTEX	

TIME	TEMP. (°C)	CONDUCTIVITY (umhos/cm)	TURBIDITY (ntu)	pH	Gallons Purged
1434	20.9	2855	641	7.10	0.2
1440	18.5	2460	465	6.62	0.4
1445	18.4	2486	553	6.51	0.6
0806	16.9	1839	765	6.29	0.8
0812	17.1	---	661	6.46	1.0

comments: Well went dry after purging 0.6 gallon. Allowed to recharge overnight. Purged additional 0.4 gallon on 6/16.

Sample collected at 0820 (6/16).

MONITORING WELL DEVELOPMENT DATA

Project Name: Fortuna Maint. Station	**Project Number:** S8875-06-50
Well No.: MW-17D	Date: 6/15/06
Well Diameter: 1 in.	Field Personnel: MO
Casing Length: 20 feet	Screened Casing Length:
Well Elevation: NA	

PURGE CHARACTERISTICS	
Water Depth Before Purging: 3.86 ft.	1 in. = 0.041 Gal/ft. 2 in. = 0.1632 Gal/ft.
Calculated Water Column Volume: 0.6 Gal.	Volumes Purged: 10.6
Start Purging Time: 1611	End Purging Time: 1655
Total Time: 44 min.	Flow Gauge: to
Total Volume Purged: 7 Gal.	Avg. Flow Rate: gpm
Water Depth After Purging: feet	Time:
Dissolved Oxygen: mg/l	Free Product: (Y/N); Thickness: inches

SAMPLING CHARACTERISTICS	
Purging Method: Reusable Bailer	Sampling Method: Disposable Bailer
Laboratory Analysis: TPHg, BTEX	

TIME	TEMP. (°C)	CONDUCTIVITY (umhos/cm)	TURBIDITY (ntu)	pH	Gallons Purged
1622	18.1	1657	224	6.27	1.5
1631	17.4	1480	376	6.03	3
1638	17.2	1212	338	5.90	4.5
1649	17.4	841	871	5.81	6
1655	17.3	813	202	5.67	7

comments:
Sample collected at 1705.

MONITORING WELL DEVELOPMENT DATA

Project Name: Fortuna Maint. Station	**Project Number:** S8875-06-50
Well No.: MW-18S	Date: 6/15/06
Well Diameter: 1 in.	Field Personnel: MO
Casing Length: 8 feet	Screened Casing Length:
Well Elevation: NA	

PURGE CHARACTERISTICS	
Water Depth Before Purging: 4.69 ft.	1 in. = 0.041 Gal/ft. 2 in. = 0.1632 Gal/ft.
Calculated Water Column Volume: 0.14 Gal.	Volumes Purged: 10.7
Start Purging Time: 1354	End Purging Time: 1410
Total Time: 16 min.	Flow Gauge: to
Total Volume Purged: 1.5 Gal.	Avg. Flow Rate: gpm
Water Depth After Purging: feet	Time:
Dissolved Oxygen: mg/l	Free Product: (Y/N); Thickness: inches

SAMPLING CHARACTERISTICS					
Purging Method: Reusable Bailer			Sampling Method: Disposable Bailer		
Laboratory Analysis: TPHg, BTEX					
TIME	TEMP. (°C)	CONDUCTIVITY (umhos/cm)	TURBIDITY (ntu)	pH	Gallons Purged
1358	21.7	3188	388	6.48	0.3
1400	19.2	2850	250	6.51	0.6
1404	18.6	2805	190	6.56	0.9
1407	18.4	2795	182	6.59	1.2
1410	18.0	2948	159	6.49	1.5

comments:
Sample collected at 1420.

MONITORING WELL DEVELOPMENT DATA

Project Name: Fortuna Maint. Station	**Project Number:** S8875-06-50
Well No.: MW-18D	Date: 6/15/06
Well Diameter: 1 in.	Field Personnel: MO
Casing Length: 20 feet	Screened Casing Length:
Well Elevation: NA	

PURGE CHARACTERISTICS	
Water Depth Before Purging: 3.88 ft.	1 in. = 0.041 Gal/ft. 2 in. = 0.1632 Gal/ft.
Calculated Water Column Volume: 0.66 Gal.	Volumes Purged: 10.6
Start Purging Time: 1452	End Purging Time: 1528
Total Time: 36 min.	Flow Gauge: to
Total Volume Purged: 7 Gal.	Avg. Flow Rate: gpm
Water Depth After Purging: feet	Time:
Dissolved Oxygen: mg/l	Free Product: (Y/N); Thickness: inches

SAMPLING CHARACTERISTICS					
Purging Method: Reusable Bailer			Sampling Method: Disposable Bailer		
Laboratory Analysis: TPHg, BTEX					
TIME	TEMP. (°C)	CONDUCTIVITY (umhos/cm)	TURBIDITY (ntu)	pH	Gallons Purged
1454	17.5	1615	956	6.36	1.5
1506	17.4	1187	355	6.11	3
1512	17.1	1093	154	5.99	4.5
1518	17.2	799	68	6.20	6
1528	17.0	790	65	6.18	7

comments:
Sample collected at 1535.

APPENDIX D

KIFF Analytical LLC

Report Number : 49140
Date : 03/30/2006

West Bourgault
Geocon Consultants, Inc.
3160 Gold Valley Road, Suite 800
Rancho Cordova, CA 95742

Subject : 27 Soil Samples and 9 Water Samples
Project Name : Fortuna MS
Project Number : S8875-06-50
P.O. Number : 03A0937

Dear Mr. Bourgault,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B36-4** Matrix : Soil Lab Number : 49140-01

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	97.6		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	109		% Recovery	EPA 8260B	03/25/2006

Sample : **B36-6** Matrix : Soil Lab Number : 49140-02

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	95.8		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	111		% Recovery	EPA 8260B	03/25/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B36-8** Matrix : Soil Lab Number : 49140-03

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	97.3		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	111		% Recovery	EPA 8260B	03/25/2006

Sample : **B37-4** Matrix : Soil Lab Number : 49140-04

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	96.8		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	108		% Recovery	EPA 8260B	03/25/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B37-6** Matrix : Soil Lab Number : 49140-05

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	96.4		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	109		% Recovery	EPA 8260B	03/25/2006

Sample : **B37-8** Matrix : Soil Lab Number : 49140-06

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	97.7		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	111		% Recovery	EPA 8260B	03/25/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B38-4** Matrix : Soil Lab Number : 49140-07

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	99.0		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	03/25/2006

Sample : **B38-6** Matrix : Soil Lab Number : 49140-08

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	96.1		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	03/25/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B38-8** Matrix : Soil Lab Number : 49140-09

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	97.2		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	03/25/2006

Sample : **B39-3** Matrix : Soil Lab Number : 49140-10

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	97.0		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	03/25/2006

Approved By: Joel Kiff

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KIFF Analytical LLC

Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B39-6** Matrix : Soil Lab Number : 49140-11

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	98.6		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	111		% Recovery	EPA 8260B	03/25/2006

Sample : **B39-8** Matrix : Soil Lab Number : 49140-12

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	97.4		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	03/25/2006

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KIFF Analytical LLC

Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B40-2** Matrix : Soil Lab Number : 49140-13

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	96.1		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	03/25/2006

Sample : **B40-8** Matrix : Soil Lab Number : 49140-14

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**0.31**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**0.97**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**0.29**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**1.3**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**8.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	99.7		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	91.2		% Recovery	EPA 8260B	03/25/2006

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Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B41-4** Matrix : Soil Lab Number : 49140-15

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**11**	0.25	mg/Kg	EPA 8260B	03/28/2006
Toluene	**0.83**	0.25	mg/Kg	EPA 8260B	03/28/2006
Ethylbenzene	**14**	0.25	mg/Kg	EPA 8260B	03/28/2006
Total Xylenes	**2.3**	0.25	mg/Kg	EPA 8260B	03/28/2006
TPH as Gasoline	**1100**	25	mg/Kg	EPA 8260B	03/28/2006
Toluene - d8 (Surr)	97.0		% Recovery	EPA 8260B	03/28/2006
4-Bromofluorobenzene (Surr)	96.3		% Recovery	EPA 8260B	03/28/2006

Sample : **B41-6** Matrix : Soil Lab Number : 49140-16

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**4.7**	0.90	mg/Kg	EPA 8260B	03/28/2006
Toluene	**23**	0.90	mg/Kg	EPA 8260B	03/28/2006
Ethylbenzene	**14**	0.90	mg/Kg	EPA 8260B	03/28/2006
Total Xylenes	**67**	0.90	mg/Kg	EPA 8260B	03/28/2006
TPH as Gasoline	**810**	90	mg/Kg	EPA 8260B	03/28/2006
Toluene - d8 (Surr)	99.9		% Recovery	EPA 8260B	03/28/2006
4-Bromofluorobenzene (Surr)	94.8		% Recovery	EPA 8260B	03/28/2006

Approved By: Joel Kiff

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Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B41-8** Matrix : Soil Lab Number : 49140-17

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**1.0**	0.0050	mg/Kg	EPA 8260B	03/28/2006
Toluene	**1.3**	0.0050	mg/Kg	EPA 8260B	03/28/2006
Ethylbenzene	**0.17**	0.0050	mg/Kg	EPA 8260B	03/28/2006
Total Xylenes	**0.82**	0.0050	mg/Kg	EPA 8260B	03/28/2006
TPH as Gasoline	**8.5**	1.0	mg/Kg	EPA 8260B	03/28/2006
Toluene - d8 (Surr)	97.5		% Recovery	EPA 8260B	03/28/2006
4-Bromofluorobenzene (Surr)	111		% Recovery	EPA 8260B	03/28/2006

Sample : **B42-4** Matrix : Soil Lab Number : 49140-18

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**1.3**	0.0050	mg/Kg	EPA 8260B	03/26/2006
Toluene	**0.11**	0.0050	mg/Kg	EPA 8260B	03/26/2006
Ethylbenzene	**1.2**	0.0050	mg/Kg	EPA 8260B	03/26/2006
Total Xylenes	**6.6**	0.025	mg/Kg	EPA 8260B	03/28/2006
TPH as Gasoline	**32**	2.5	mg/Kg	EPA 8260B	03/28/2006
Toluene - d8 (Surr)	93.6		% Recovery	EPA 8260B	03/26/2006
4-Bromofluorobenzene (Surr)	95.7		% Recovery	EPA 8260B	03/26/2006

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Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B42-6** Matrix : Soil Lab Number : 49140-19

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**2.4**	0.25	mg/Kg	EPA 8260B	03/28/2006
Toluene	**22**	0.25	mg/Kg	EPA 8260B	03/28/2006
Ethylbenzene	**15**	0.25	mg/Kg	EPA 8260B	03/28/2006
Total Xylenes	**75**	0.25	mg/Kg	EPA 8260B	03/28/2006
TPH as Gasoline	**860**	25	mg/Kg	EPA 8260B	03/28/2006
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	03/28/2006
4-Bromofluorobenzene (Surr)	98.0		% Recovery	EPA 8260B	03/28/2006

Sample : **B42-8** Matrix : Soil Lab Number : 49140-20

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**0.99**	0.0050	mg/Kg	EPA 8260B	03/28/2006
Toluene	**1.3**	0.0050	mg/Kg	EPA 8260B	03/28/2006
Ethylbenzene	**0.28**	0.0050	mg/Kg	EPA 8260B	03/28/2006
Total Xylenes	**1.3**	0.0050	mg/Kg	EPA 8260B	03/28/2006
TPH as Gasoline	**10**	1.0	mg/Kg	EPA 8260B	03/28/2006
Toluene - d8 (Surr)	97.2		% Recovery	EPA 8260B	03/28/2006
4-Bromofluorobenzene (Surr)	112		% Recovery	EPA 8260B	03/28/2006

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Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B43-2** Matrix : Soil Lab Number : 49140-21

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/27/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/27/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/27/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/27/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/27/2006
Toluene - d8 (Surr)	97.0		% Recovery	EPA 8260B	03/27/2006
4-Bromofluorobenzene (Surr)	112		% Recovery	EPA 8260B	03/27/2006

Sample : **B43-4** Matrix : Soil Lab Number : 49140-22

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**0.0088**	0.0050	mg/Kg	EPA 8260B	03/28/2006
Toluene	**0.0070**	0.0050	mg/Kg	EPA 8260B	03/28/2006
Ethylbenzene	**0.074**	0.0050	mg/Kg	EPA 8260B	03/28/2006
Total Xylenes	**0.26**	0.0050	mg/Kg	EPA 8260B	03/28/2006
TPH as Gasoline	**11**	1.0	mg/Kg	EPA 8260B	03/29/2006
Toluene - d8 (Surr)	95.4		% Recovery	EPA 8260B	03/28/2006
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	03/28/2006

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Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B43-6** Matrix : Soil Lab Number : 49140-23

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/27/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/27/2006
Ethylbenzene	**0.0072**	0.0050	mg/Kg	EPA 8260B	03/27/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/27/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/27/2006
Toluene - d8 (Surr)	97.0		% Recovery	EPA 8260B	03/27/2006
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	03/27/2006

Sample : **B43-8** Matrix : Soil Lab Number : 49140-24

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**0.0068**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**0.021**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**0.013**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	99.6		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	96.8		% Recovery	EPA 8260B	03/25/2006

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Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B44-4** Matrix : Soil Lab Number : 49140-25

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	96.3		% Recovery	EPA 8260B	03/25/2006

Sample : **B44-6** Matrix : Soil Lab Number : 49140-26

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	93.5		% Recovery	EPA 8260B	03/25/2006

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Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B44-8** Matrix : Soil Lab Number : 49140-27

Sample Date :03/21/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	99.9		% Recovery	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	94.8		% Recovery	EPA 8260B	03/25/2006

Sample : **B36-GW** Matrix : Water Lab Number : 49140-28

Sample Date :03/22/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
Toluene	**0.69**	0.50	ug/L	EPA 8260B	03/27/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	03/27/2006
Toluene - d8 (Surr)	108		% Recovery	EPA 8260B	03/27/2006
4-Bromofluorobenzene (Surr)	92.9		% Recovery	EPA 8260B	03/27/2006

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Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B37-GW** Matrix : Water Lab Number : 49140-29

Sample Date :03/22/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	03/27/2006
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	03/27/2006
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	03/27/2006

Sample : **B39-GW** Matrix : Water Lab Number : 49140-30

Sample Date :03/22/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	03/27/2006
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	03/27/2006
4-Bromofluorobenzene (Surr)	99.2		% Recovery	EPA 8260B	03/27/2006

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Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B44-GW** Matrix : Water Lab Number : 49140-31

Sample Date :03/22/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
TPH as Gasoline	**180**	50	ug/L	EPA 8260B	03/27/2006
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	03/27/2006
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	03/27/2006

Sample : **B38-GW** Matrix : Water Lab Number : 49140-32

Sample Date :03/22/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	03/27/2006
TPH as Gasoline	**65**	50	ug/L	EPA 8260B	03/27/2006
Toluene - d8 (Surr)	97.8		% Recovery	EPA 8260B	03/27/2006
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	03/27/2006

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Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B40-GW** Matrix : Water Lab Number : 49140-33

Sample Date :03/22/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**77**	0.90	ug/L	EPA 8260B	03/28/2006
Toluene	**66**	0.90	ug/L	EPA 8260B	03/28/2006
Ethylbenzene	**140**	0.90	ug/L	EPA 8260B	03/28/2006
Total Xylenes	**380**	0.90	ug/L	EPA 8260B	03/28/2006
TPH as Gasoline	**2700**	90	ug/L	EPA 8260B	03/28/2006
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	03/28/2006
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	03/28/2006

Sample : **B43-GW** Matrix : Water Lab Number : 49140-34

Sample Date :03/22/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**26**	0.50	ug/L	EPA 8260B	03/27/2006
Toluene	**3.1**	0.50	ug/L	EPA 8260B	03/27/2006
Ethylbenzene	**120**	0.50	ug/L	EPA 8260B	03/27/2006
Total Xylenes	**77**	0.50	ug/L	EPA 8260B	03/27/2006
TPH as Gasoline	**1900**	50	ug/L	EPA 8260B	03/27/2006
Toluene - d8 (Surr)	99.2		% Recovery	EPA 8260B	03/27/2006
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	03/27/2006

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Report Number : 49140

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Sample : **B41-GW** Matrix : Water Lab Number : 49140-35

Sample Date :03/22/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**5500**	15	ug/L	EPA 8260B	03/28/2006
Toluene	**3400**	15	ug/L	EPA 8260B	03/28/2006
Ethylbenzene	**740**	15	ug/L	EPA 8260B	03/28/2006
Total Xylenes	**2600**	15	ug/L	EPA 8260B	03/28/2006
TPH as Gasoline	**36000**	1500	ug/L	EPA 8260B	03/28/2006
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	03/28/2006
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	03/28/2006

Sample : **B42-GW** Matrix : Water Lab Number : 49140-36

Sample Date :03/22/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**3800**	10	ug/L	EPA 8260B	03/28/2006
Toluene	**7700**	20	ug/L	EPA 8260B	03/29/2006
Ethylbenzene	**1300**	10	ug/L	EPA 8260B	03/28/2006
Total Xylenes	**6900**	10	ug/L	EPA 8260B	03/28/2006
TPH as Gasoline	**58000**	1000	ug/L	EPA 8260B	03/28/2006
Toluene - d8 (Surr)	98.2		% Recovery	EPA 8260B	03/28/2006
4-Bromofluorobenzene (Surr)	111		% Recovery	EPA 8260B	03/28/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 49140

Date : 03/30/2006

QC Report : Method Blank Data

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/24/2006
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/24/2006
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/24/2006
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/24/2006
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	03/24/2006
Toluene - d8 (Surr)	97.5		%	EPA 8260B	03/24/2006
4-Bromofluorobenzene (Surr)	111		%	EPA 8260B	03/24/2006
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/25/2006
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/25/2006
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/25/2006
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/25/2006
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	03/25/2006
Toluene - d8 (Surr)	96.4		%	EPA 8260B	03/25/2006
4-Bromofluorobenzene (Surr)	112		%	EPA 8260B	03/25/2006
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/28/2006
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/28/2006
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/28/2006
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/28/2006
Toluene - d8 (Surr)	104		%	EPA 8260B	03/28/2006
4-Bromofluorobenzene (Surr)	96.2		%	EPA 8260B	03/28/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/27/2006
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/27/2006
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/27/2006
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/27/2006
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	03/27/2006
Toluene - d8 (Surr)	96.5		%	EPA 8260B	03/27/2006
4-Bromofluorobenzene (Surr)	105		%	EPA 8260B	03/27/2006
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/27/2006
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/27/2006
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/27/2006
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	03/27/2006
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	03/27/2006
Toluene - d8 (Surr)	97.1		%	EPA 8260B	03/27/2006
4-Bromofluorobenzene (Surr)	108		%	EPA 8260B	03/27/2006
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	03/29/2006
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/27/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/27/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/27/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/27/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/27/2006
Toluene - d8 (Surr)	102		%	EPA 8260B	03/27/2006
4-Bromofluorobenzene (Surr)	102		%	EPA 8260B	03/27/2006

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 49140

Date : 03/30/2006

QC Report : Method Blank Data

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/27/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/27/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/27/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/27/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/27/2006
Toluene - d8 (Surr)	100		%	EPA 8260B	03/27/2006
4-Bromofluorobenzene (Surr)	110		%	EPA 8260B	03/27/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/28/2006
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/27/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/27/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/27/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/27/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/27/2006
Toluene - d8 (Surr)	107		%	EPA 8260B	03/27/2006
4-Bromofluorobenzene (Surr)	92.4		%	EPA 8260B	03/27/2006
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/27/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/27/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/27/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/27/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/27/2006
Toluene - d8 (Surr)	97.8		%	EPA 8260B	03/27/2006
4-Bromofluorobenzene (Surr)	98.9		%	EPA 8260B	03/27/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 49140

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	49133-02	<0.0050	0.0377	0.0397	0.0383	0.0406	mg/Kg	EPA 8260B	3/25/06	102	102	0.669	70-130	25
Toluene	49133-02	<0.0050	0.0377	0.0397	0.0376	0.0396	mg/Kg	EPA 8260B	3/25/06	99.6	99.7	0.0786	70-130	25
Methyl-t-Butyl Ether	49133-02	<0.0050	0.0377	0.0397	0.0397	0.0414	mg/Kg	EPA 8260B	3/25/06	105	104	1.04	70-130	25
Benzene	49140-13	<0.0050	0.0390	0.0383	0.0360	0.0346	mg/Kg	EPA 8260B	3/25/06	92.2	90.2	2.20	70-130	25
Toluene	49140-13	<0.0050	0.0390	0.0383	0.0325	0.0313	mg/Kg	EPA 8260B	3/25/06	83.3	81.7	1.87	70-130	25
Methyl-t-Butyl Ether	49140-13	<0.0050	0.0390	0.0383	0.0353	0.0337	mg/Kg	EPA 8260B	3/25/06	90.5	87.9	2.84	70-130	25
Benzene	49143-49	<0.0050	0.0390	0.0390	0.0397	0.0405	mg/Kg	EPA 8260B	3/28/06	102	104	1.91	70-130	25
Toluene	49143-49	<0.0050	0.0390	0.0390	0.0397	0.0417	mg/Kg	EPA 8260B	3/28/06	102	107	4.83	70-130	25
Methyl-t-Butyl Ether	49143-49	<0.0050	0.0390	0.0390	0.0404	0.0388	mg/Kg	EPA 8260B	3/28/06	104	99.6	3.89	70-130	25
Benzene	49151-10	<0.0050	0.0399	0.0393	0.0376	0.0365	mg/Kg	EPA 8260B	3/27/06	94.2	93.0	1.38	70-130	25
Toluene	49151-10	<0.0050	0.0399	0.0393	0.0357	0.0346	mg/Kg	EPA 8260B	3/27/06	89.5	88.0	1.64	70-130	25
Methyl-t-Butyl Ether	49151-10	<0.0050	0.0399	0.0393	0.0374	0.0389	mg/Kg	EPA 8260B	3/27/06	93.8	99.1	5.48	70-130	25
Benzene	49143-50	<0.0050	0.0383	0.0400	0.0390	0.0400	mg/Kg	EPA 8260B	3/27/06	102	100	1.81	70-130	25
Toluene	49143-50	<0.0050	0.0383	0.0400	0.0391	0.0401	mg/Kg	EPA 8260B	3/27/06	102	100	1.66	70-130	25
Methyl-t-Butyl Ether	49143-50	<0.0050	0.0383	0.0400	0.0396	0.0402	mg/Kg	EPA 8260B	3/27/06	103	101	2.59	70-130	25
Benzene	48577-32	<0.0050	0.0396	0.0398	0.0389	0.0395	mg/Kg	EPA 8260B	3/29/06	98.2	99.4	1.24	70-130	25
Toluene	48577-32	<0.0050	0.0396	0.0398	0.0376	0.0386	mg/Kg	EPA 8260B	3/29/06	94.9	97.0	2.25	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 49140

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Methyl-t-Butyl Ether	48577-32	<0.0050	0.0396	0.0398	0.0398	0.0384	mg/Kg	EPA 8260B	3/29/06	101	96.5	4.21	70-130	25
Benzene	49148-01	27	40.0	40.0	58.9	57.1	ug/L	EPA 8260B	3/27/06	80.6	76.0	5.78	70-130	25
Toluene	49148-01	4.0	40.0	40.0	38.3	37.9	ug/L	EPA 8260B	3/27/06	85.8	84.9	1.08	70-130	25
Benzene	49148-11	1.4	40.0	40.0	39.1	38.5	ug/L	EPA 8260B	3/27/06	94.2	92.7	1.61	70-130	25
Toluene	49148-11	<0.50	40.0	40.0	38.7	37.9	ug/L	EPA 8260B	3/27/06	96.7	94.7	2.10	70-130	25
Benzene	49161-03	<0.50	40.0	40.0	40.4	39.1	ug/L	EPA 8260B	3/28/06	101	97.8	3.19	70-130	25
Toluene	49161-03	<0.50	40.0	40.0	40.5	39.1	ug/L	EPA 8260B	3/28/06	101	97.8	3.38	70-130	25
Benzene	49155-03	0.66	40.0	40.0	39.8	37.1	ug/L	EPA 8260B	3/27/06	97.9	91.0	7.29	70-130	25
Toluene	49155-03	<0.50	40.0	40.0	43.7	40.2	ug/L	EPA 8260B	3/27/06	109	100	8.36	70-130	25
Benzene	49153-01	96	40.0	40.0	141	138	ug/L	EPA 8260B	3/27/06	113	106	6.34	70-130	25
Toluene	49153-01	21	40.0	40.0	64.9	63.5	ug/L	EPA 8260B	3/27/06	109	105	3.23	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 49140

QC Report : Laboratory Control Sample (LCS)

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	0.0385	mg/Kg	EPA 8260B	3/24/06	101	70-130
Toluene	0.0385	mg/Kg	EPA 8260B	3/24/06	98.6	70-130
Methyl-t-Butyl Ether	0.0385	mg/Kg	EPA 8260B	3/24/06	99.3	70-130
Benzene	0.0390	mg/Kg	EPA 8260B	3/25/06	98.7	70-130
Toluene	0.0390	mg/Kg	EPA 8260B	3/25/06	95.4	70-130
Methyl-t-Butyl Ether	0.0390	mg/Kg	EPA 8260B	3/25/06	94.5	70-130
Benzene	0.0397	mg/Kg	EPA 8260B	3/28/06	108	70-130
Toluene	0.0397	mg/Kg	EPA 8260B	3/28/06	105	70-130
Methyl-t-Butyl Ether	0.0397	mg/Kg	EPA 8260B	3/28/06	102	70-130
Benzene	0.0378	mg/Kg	EPA 8260B	3/27/06	83.1	70-130
Toluene	0.0378	mg/Kg	EPA 8260B	3/27/06	78.1	70-130
Methyl-t-Butyl Ether	0.0378	mg/Kg	EPA 8260B	3/27/06	86.7	70-130
Benzene	0.0398	mg/Kg	EPA 8260B	3/27/06	98.6	70-130
Toluene	0.0398	mg/Kg	EPA 8260B	3/27/06	95.7	70-130
Methyl-t-Butyl Ether	0.0398	mg/Kg	EPA 8260B	3/27/06	98.9	70-130
Benzene	0.0400	mg/Kg	EPA 8260B	3/29/06	102	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 49140

QC Report : Laboratory Control Sample (LCS)

Date : 03/30/2006

Project Name : **Fortuna MS**

Project Number : **S8875-06-50**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Toluene	0.0400	mg/Kg	EPA 8260B	3/29/06	98.6	70-130
Methyl-t-Butyl Ether	0.0400	mg/Kg	EPA 8260B	3/29/06	101	70-130
Benzene	40.0	ug/L	EPA 8260B	3/27/06	92.8	70-130
Toluene	40.0	ug/L	EPA 8260B	3/27/06	95.6	70-130
Benzene	40.0	ug/L	EPA 8260B	3/27/06	99.0	70-130
Toluene	40.0	ug/L	EPA 8260B	3/27/06	103	70-130
Benzene	40.0	ug/L	EPA 8260B	3/28/06	97.6	70-130
Toluene	40.0	ug/L	EPA 8260B	3/28/06	101	70-130
Benzene	40.0	ug/L	EPA 8260B	3/27/06	101	70-130
Toluene	40.0	ug/L	EPA 8260B	3/27/06	110	70-130
Benzene	40.0	ug/L	EPA 8260B	3/27/06	102	70-130
Toluene	40.0	ug/L	EPA 8260B	3/27/06	102	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 49140

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): West Bourgault

California EDF Report? ☑ Yes ☐ No

Company / Address: Geocon

Sampling Company Log Code: GECR

Phone #: 916.852.9118 Fax #: 916.852.9132

Global ID: T0602300033

Project #: S8875-06-50 P.O. #:

EDF Deliverable To (Email Address): bourgault@geoconinc.com

Project Name: Fortuna MS

Sampler Signature: West Bourgault

Project Address: 1924 Smith Ln. Fortuna, CA

Sample Designation	Sampling Date	Sampling Time	Container: 40 ml VOA	Sleeve	Poly	Glass	Tedlar	Preservative: HCl	HNO_3	None	Ice	Matrix: Water	Soil	Air	MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	MTBE (EPA 8260B) @ 0.5 ppb	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	7 Oxygenates (EPA 8260B)	Lead Scav.(1,2 DCA & 1,2 EDB-EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	Total Lead (EPA 6010)	W.E.T. Lead (STLC)	TAT: 12 hr	24 hr	48 hr	72 hr	1 wk	For Lab Use Only
B36-4	3/23/06	1138		1							X		X				X	X															X	01
B36-6		1148																																02
B36-8		1150																																03
B37-4		1210																																04
B37-6		1218																																05
B37-8		1220																																06
B38-4		1238																																07
B38-6		1240																																08
B38-8		1245																																09
B39-3		1303																																10

Relinquished by:	Date	Time	Received by:
[signature]	3/23/06	1430	Geocon Refridgerator
	032406	1245	Rozmelee Kiff Analytical

Remarks: Caltrans Contract No. 03A0937

Bill to:

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
3.4	RLM	032406	1758	IR-1	(Yes) / No

Distribution: White - Lab; Pink - Originator
Rev: 051805

KIFF Analytical LLC

2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 49140

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): West Bourgault

California EDF Report? ☑ Yes ☐ No

Company / Address: Geocon

Sampling Company Log Code: GECR

Phone #: 916.852.9118 Fax #: 916.852.9132

Global ID: T0602300033

Project #: S8875-06-50 P.O. #:

EDF Deliverable To (Email Address): bourgault@geoconinc.com

Project Name: Fortuna MS

Sampler Signature: West Bourgault

Project Address: 1924 Smith Ln. Fortuna, CA

Sample Designation	Sampling Date	Sampling Time	Container: 40 ml VOA	Sleeve	Poly	Glass	Tedlar		Preservative: HCl	HNO_3	None	Ice		Matrix: Water	Soil	Air		MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	MTBE (EPA 8260B) @ 0.5 ppb	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	7 Oxygenates (EPA 8260B)	Lead Scav.(1,2 DCA & 1,2 EDB-EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	Total Lead (EPA 6010)	W.E.T. Lead (STLC)				TAT: 12 hr / 24 hr / 48 hr / 72 hr / 1 wk	For Lab Use Only
B39-6	3/23/06	1313		1								X			X					X	X													X	11
B39-8	↓	1315		↓								↓			↓					↓	↓													↓	12
B40-2	↓	1332		↓								↓			↓					↓	↓													↓	13
B40-8	↓	1340		↓								↓			↓					↓	↓													↓	14
B41-4	↓	1405		↓								↓			↓					↓	↓													↓	15
B41-6	↓	1413		↓								↓			↓					↓	↓													↓	16
B41-8	↓	1415		↓								↓			↓					↓	↓													↓	17
B42-4	↓	1435		↓								↓			↓					↓	↓													↓	18
B42-6	↓	1440		↓								↓			↓					↓	↓													↓	19
B42-8	↓	1442		↓								↓			↓					↓	↓													↓	20

Relinquished by:	Date	Time	Received by:
[signature]	3/23/06	1430	Geocon Refridgerator
	032406	1245	Rozmc Lee Kiff Analytical

Remarks: Caltrans Contract No. 03A0937

Bill to:

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No

Distribution: White - Lab; Pink - Originator
Rev: 051805

KIFF Analytical LLC

2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 49140

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): West Bourgault	California EDF Report? ☑ Yes ☐ No
Company / Address: Geocon	Sampling Company Log Code: GECR
Phone #: 916.852.9118 / Fax #: 916.852.9132	Global ID: T0602300033
Project #: S8875-06-50 / P.O. #:	EDF Deliverable To (Email Address): bourgaultt@geoconinc.com
Project Name: Fortuna MS	Sampler Signature: West Bourgault
Project Address: 924 Smith Ln, Fortuna, CA	

Analysis Request

Sample Designation	Sampling Date	Sampling Time	Container: 40 ml VOA	Sleeve	Poly	Glass	Tedlar	Preservative: HCl	HNO_3	None	Ice	Matrix: Water	Soil	Air	MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	MTBE (EPA 8260B) @ 0.5 ppb	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	7 Oxygenates (EPA 8260B)	Lead Scav.(1,2 DCA & 1,2 EDB-EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	Total Lead (EPA 6010)	W.E.T. Lead (STLC)	TAT: 12 hr ☐ / 24 hr ☐ / 48 hr ☐ / 72 hr ☐ / 1 wk ☑	For Lab Use Only
B43-2	3/21/06	1503		1							X						X	X											X	21
B43-4	↓	1505		↓							↓						↓	↓											↓	22
B43-6	↓	1517		↓							↓						↓	↓											↓	23
B43-8	↓	1520		↓							↓						↓	↓											↓	24
B44-4	↓	1555		↓							↓						↓	↓											↓	25
B44-6	↓	1600		↓							↓						↓	↓											↓	26
B44-8	↓	1605		↓							↓						↓	↓											↓	27
B36-GW	3/22/06	0735	4					X																						28
B37-GW	↓	0745						X																						29
B39-GW	↓	0800						X			↓						↓	↓											↓	30

Relinquished by:	Date	Time	Received by:
[signature]	5/23/06	1430	Geocon Refridorator
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
	032406	1245	Ron McGee Kiff Analytical

Remarks: CalTrans Contract No. 03A0937

Bill to:

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No

Distribution: White - Lab; Pink - Originator
Rev: 051805

KIFF Analytical LLC

2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 49140

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): West Bourgault

California EDF Report? ☑ Yes ☐ No

Company / Address: Geocon

Sampling Company Log Code: GECR

Phone #: 916.852.9118 Fax #: 916.852.9132

Global ID: T0602300033

Project #: S8875-06-50 P.O. #:

EDF Deliverable To (Email Address): bourgault@geoconinc.com

Project Name: Fortuna MS

Sampler Signature: West Bourgault

Project Address: Smith Ln. Fortuna, CA

Sample Designation	Sampling Date	Sampling Time	Container: 40 ml VOA	Sleeve	Poly	Glass	Tedlar		Preservative: HCl	HNO_3	None	HCl		Matrix: Water	Soil	Air			Analysis Request: MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	MTBE (EPA 8260B) @ 0.5 ppb	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	7 Oxygenates (EPA 8260B)	Lead Scav.(1,2 DCA & 1,2 EDB-EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	Total Lead (EPA 6010)	W.E.T. Lead (STLC)				TAT: 12 hr / 24 hr / 48 hr / 72 hr / 1 wk	For Lab Use Only
B44-GW	3/22/06	0815	4						X			X		X							X	X													☑ 1 wk	31
B38-GW		0825																																		32
B40-GW		0840																																		33
B43-GW		0850																																		34
B41-GW		0905																																		35
B42-GW		0915																																		36

Relinquished by:	Date	Time	Received by:
[signature]	3/23/06	1430	Geocon Refridgerator
	032406	1245	Kiff Analytical

Remarks: Caltrans Contract No. 03A0937

Bill to:

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
					Yes / No

Distribution: White - Lab; Pink - Originator
Rev: 051805

KIFF Analytical LLC

Report Number : 50625
Date : 6/20/2006

Rebecca Silva
Geocon Consultants, Inc.
3160 Gold Valley Road, Suite 800
Rancho Cordova, CA 95742

Subject : 6 Water Samples
Project Name : Fortuna M.S.
Project Number : S8875-06-50

Dear Ms. Silva,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 50625

Date : 6/20/2006

Project Name : **Fortuna M.S.**

Project Number : **S8875-06-50**

Sample : **MW-18S** Matrix : Water Lab Number : 50625-01

Sample Date :6/15/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	6/19/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	6/19/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	6/19/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	6/19/2006
TPH as Gasoline	**120**	50	ug/L	EPA 8260B	6/19/2006
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	6/19/2006
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	6/19/2006

Sample : **MW-18D** Matrix : Water Lab Number : 50625-02

Sample Date :6/15/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	6/19/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	6/19/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	6/19/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	6/19/2006
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	6/19/2006
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	6/19/2006
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	6/19/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 50625

Date : 6/20/2006

Project Name : **Fortuna M.S.**

Project Number : **S8875-06-50**

Sample : **MW-17D** Matrix : Water Lab Number : 50625-03

Sample Date :6/15/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	6/19/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	6/19/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	6/19/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	6/19/2006
TPH as Gasoline	**610**	50	ug/L	EPA 8260B	6/19/2006
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	6/19/2006
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	6/19/2006

Sample : **MW-16D** Matrix : Water Lab Number : 50625-04

Sample Date :6/15/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**650**	0.90	ug/L	EPA 8260B	6/19/2006
Toluene	**160**	0.90	ug/L	EPA 8260B	6/19/2006
Ethylbenzene	**17**	0.90	ug/L	EPA 8260B	6/19/2006
Total Xylenes	**260**	0.90	ug/L	EPA 8260B	6/19/2006
TPH as Gasoline	**5000**	90	ug/L	EPA 8260B	6/19/2006
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	6/19/2006
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	6/19/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 50625

Date : 6/20/2006

Project Name : **Fortuna M.S.**

Project Number : **S8875-06-50**

Sample : **MW-17S** Matrix : Water Lab Number : 50625-05

Sample Date :6/16/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	6/19/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	6/19/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	6/19/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	6/19/2006
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	6/19/2006
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	6/19/2006
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	6/19/2006

Sample : **Trip Blank** Matrix : Water Lab Number : 50625-06

Sample Date :6/15/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	6/17/2006
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	6/17/2006
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	6/17/2006
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	6/17/2006
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	6/17/2006
Toluene - d8 (Surr)	98.4		% Recovery	EPA 8260B	6/17/2006
4-Bromofluorobenzene (Surr)	99.9		% Recovery	EPA 8260B	6/17/2006

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 50625

Date : 6/20/2006

QC Report : Method Blank Data

Project Name : **Fortuna M.S.**

Project Number : **S8875-06-50**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	6/19/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	6/19/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	6/19/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	6/19/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	6/19/2006
Toluene - d8 (Surr)	100		%	EPA 8260B	6/19/2006
4-Bromofluorobenzene (Surr)	101		%	EPA 8260B	6/19/2006
Benzene	< 0.50	0.50	ug/L	EPA 8260B	6/17/2006
Toluene	< 0.50	0.50	ug/L	EPA 8260B	6/17/2006
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	6/17/2006
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	6/17/2006
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	6/17/2006
Toluene - d8 (Surr)	100		%	EPA 8260B	6/17/2006
4-Bromofluorobenzene (Surr)	98.0		%	EPA 8260B	6/17/2006

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 50625

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 6/20/2006

Project Name : **Fortuna M.S.**

Project Number : **S8875-06-50**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	50626-02	<0.50	40.0	40.0	42.0	40.5	ug/L	EPA 8260B	6/19/06	105	101	3.58	70-130	25
Toluene	50626-02	<0.50	40.0	40.0	40.8	39.7	ug/L	EPA 8260B	6/19/06	102	99.2	2.87	70-130	25
Benzene	50611-05	<0.50	40.0	40.0	41.3	39.5	ug/L	EPA 8260B	6/17/06	103	98.6	4.65	70-130	25
Toluene	50611-05	<0.50	40.0	40.0	41.5	40.0	ug/L	EPA 8260B	6/17/06	104	100	3.62	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 50625

QC Report : Laboratory Control Sample (LCS)

Date : 6/20/2006

Project Name : **Fortuna M.S.**

Project Number : **S8875-06-50**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	6/19/06	100	70-130
Toluene	40.0	ug/L	EPA 8260B	6/19/06	99.9	70-130
Benzene	40.0	ug/L	EPA 8260B	6/17/06	103	70-130
Toluene	40.0	ug/L	EPA 8260B	6/17/06	102	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

2795 2nd Street Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 50625

Page 1 of 1

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): R. S. Ivq

California EDF Report? ☒ Yes ☐ No

Company / Address: Geocon

Sampling Company Log Code: GECR

Phone #: 916-852-9118 Fax #: 916-852-9132

Global ID: T0602300033

Project #: S8875-06-50 P.O. #:

EDF Deliverable To (Email Address): S.Ivq@geoconinc.com

Project Name: Fortuna M.S.

Sampler Signature:

Project Address: Fortuna, CA

Sample Designation	Sampling Date	Sampling Time	Container: 40 ml VOA	Sleeve	Poly	Glass	Tedlar		Preservative: HCl	HNO_3	None			Matrix: Water	Soil	Air		MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb	MTBE (EPA 8260B) @ 0.5 ppb	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (EPA 8260B)	7 Oxygenates (EPA 8260B)	Lead Scav.(1,2 DCA & 1,2 EDB-EPA 8260B)	Volatile Halocarbons (EPA 8260B)	Volatile Organics Full List (EPA 8260B)	Volatile Organics (EPA 524.2 Drinking Water)	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	Total Lead (EPA 6010)	W.E.T. Lead (STLC)				TAT: 12 hr / 24 hr / 48hr / 72 hr / 1 wk	For Lab Use Only
MW-18S	6/15/06	1420	4						X					X						X	X														-01
MW-18D	6/15/06	1535																																	-02
MW-17D	6/15/06	1705																																	-03
MW-16D	6/15/06	1735																																	-04
MW-17S	6/16/06	0820																																	-05
Trip Blank	6/15/06	0630	2																																-06

Relinquished by:	Date	Time	Received by:
	6/16/06	1400	
	06/16/06	1400	Received by Laboratory: Kiff Analytical

Remarks:

Bill to:

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present
6.4	OA	06/16/06	1410	IR-4	Yes / No

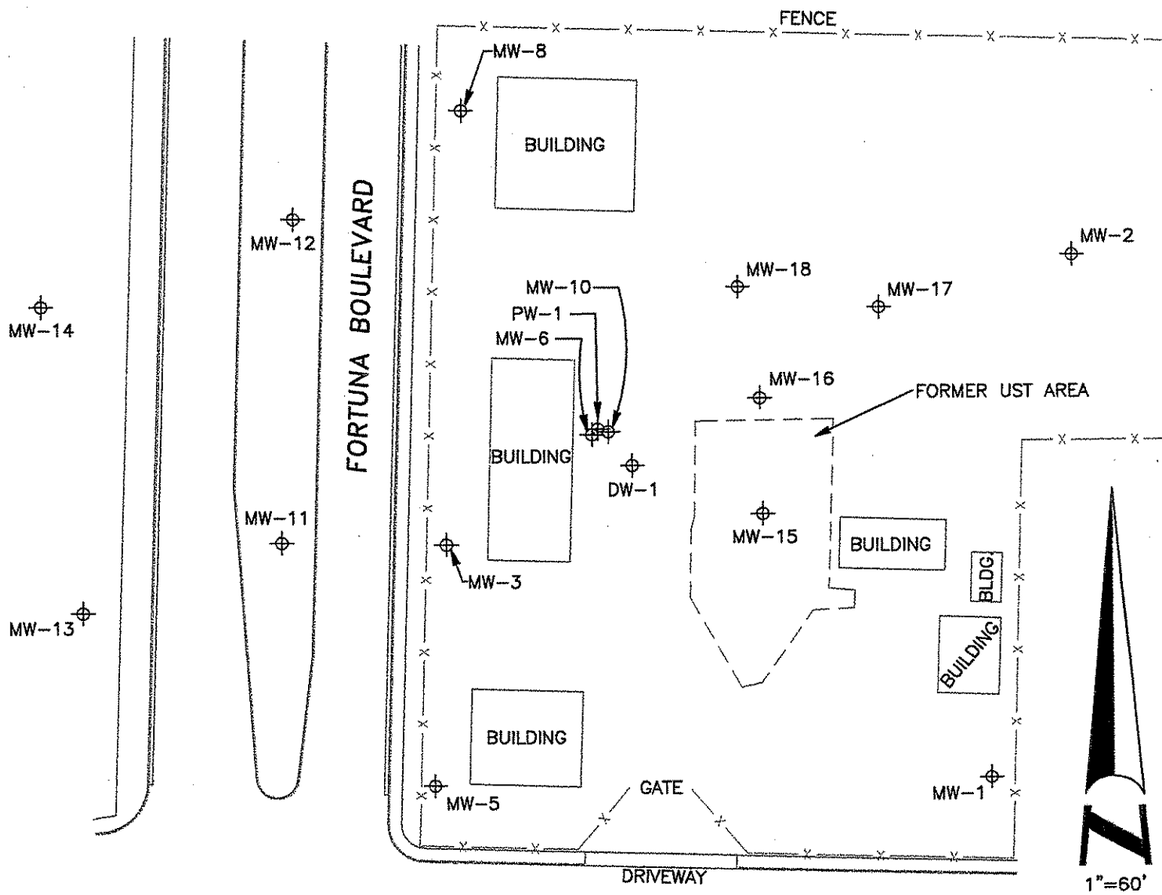
Distribution: White - Lab; Pink - Originator
Rev: 051805

APPENDIX E

Monitoring Well Exhibit

Prepared For:

Geocon Consultants



DESCRIPTION	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEV (PVC)	ELEV (BOX)
MW-1	2106308.0	5965855.7	40.5921935	-124.1457267	56.33	56.83
MW-2	2106516.6	5965889.2	40.5927683	-124.1456245	56.32	56.60
MW-3	2106401.0	5965640.3	40.5924343	-124.1465104	57.22	57.35
MW-5	2106304.6	5965635.5	40.5921693	-124.1465188	56.48	56.92
MW-6	2106445.0	5965698.3	40.5925589	-124.1463052	57.23	58.16
MW-8	2106574.5	5965646.7	40.5929109	-124.1465025	56.89	57.24
MW-10	2106446.1	5965704.8	40.5925625	-124.1462820	57.45	57.96
MW-11	2106401.7	5965574.7	40.5924318	-124.1467463	58.50	58.81
MW-12	2106531.1	5965579.6	40.5927874	-124.1467401	58.55	58.77
MW-13	2106373.7	5965496.0	40.5923496	-124.1470271	56.20	56.53
MW-14	2106496.0	5965479.6	40.5926842	-124.1470971	56.40	56.95
MW-15	2106413.6	5965766.0	40.5924773	-124.1460589	57.71	57.91
MW-16S	2106459.7	5965765.0	40.5926039	-124.1460665	57.20	57.51
MW-16D					56.94	
MW-17S	2106495.8	5965812.3	40.5927062	-124.1458995	56.71	57.06
MW-17D					56.53	
MW-18S	2106504.0	5965756.5	40.5927247	-124.1461009	56.65	57.08
MW-18D					56.42	
DW-1	2106432.7	5965714.4	40.5925264	-124.1462463	57.40	57.84
PW-1	2106447.2	5965700.7	40.5925653	-124.1462970	57.82	58.13

BASIS OF COORDINATES AND ELEVATIONS:

COORDINATES ARE CALIFORNIA STATE PLANE ZONE 1 COORDINATES FROM GPS OBSERVATIONS USING UNIVERSITY OF CALIFORNIA BAY AREA DEFORMATION CORS STATION OBSERVATION FILES AND BASED ON THE CALIFORNIA SPATIAL REFERENCE CENTER DATUM, REFERENCE EPOCH 2000.35.

COORDINATE DATUM IS NAD 83(1986).

DATUM ELLIPSOID IS GRS80.

REFERENCE GEOID IS NGS99.

CORS STATIONS USED WERE CME1 AND HOPB.

VERTICAL DATUM IS NAVD 88 FROM GPS OBSERVATIONS.

0 30 60 120 180

SCALE IN FEET

Fortuna Maintenance Station
Fortuna
Humboldt County
California

Morrow Surveying
LAND SURVEYORS

1450 Harbor Blvd. Ste. D
West Sacramento
California 95691
(916) 372-8124
curt@morrowsurveying.com

Date: 6-19-06
Scale: 1" = 60'
Sheet 1 of 1
Revised:
Field Book: MW-26
Dwg. No. 2472-047 CT